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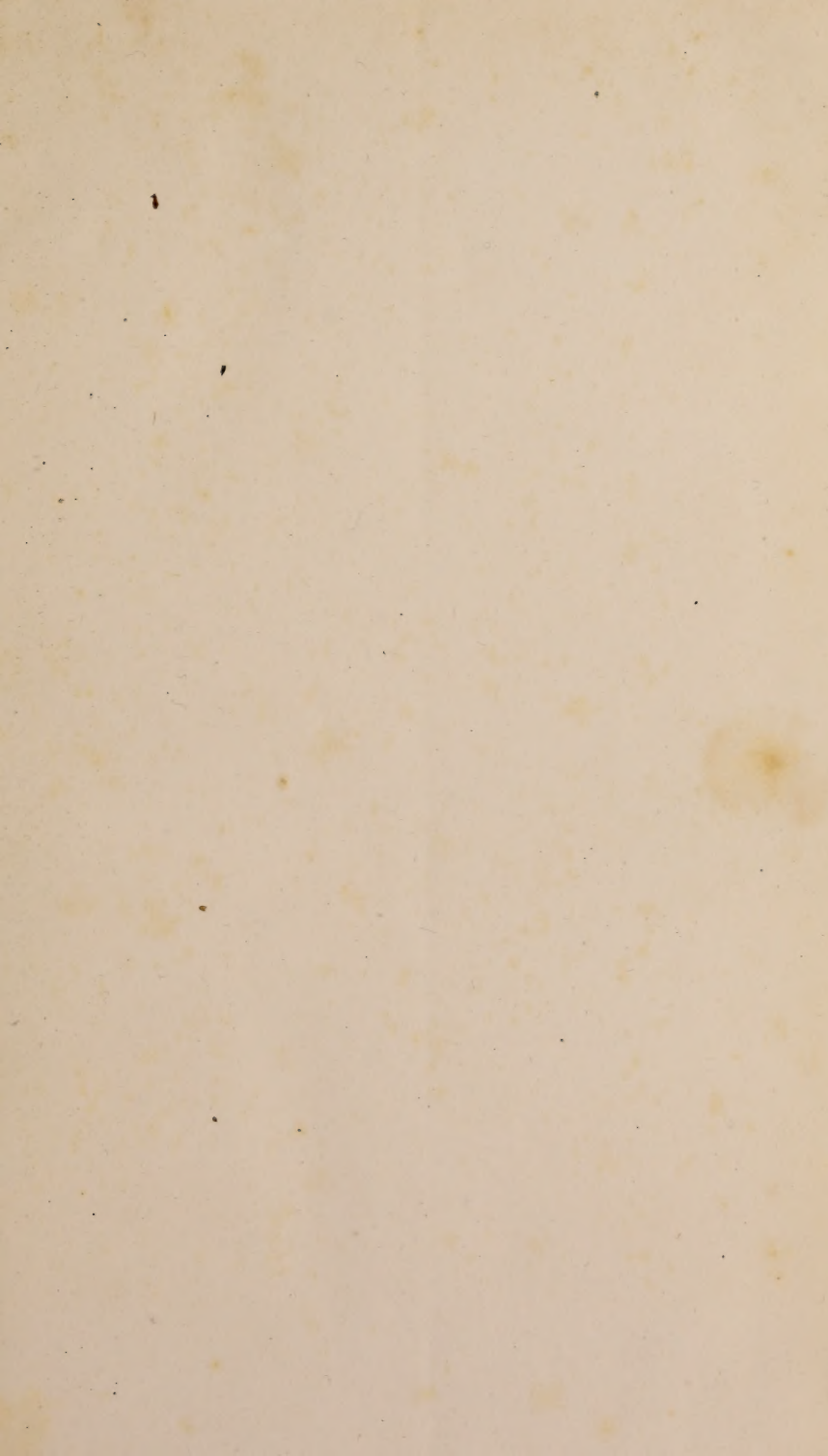
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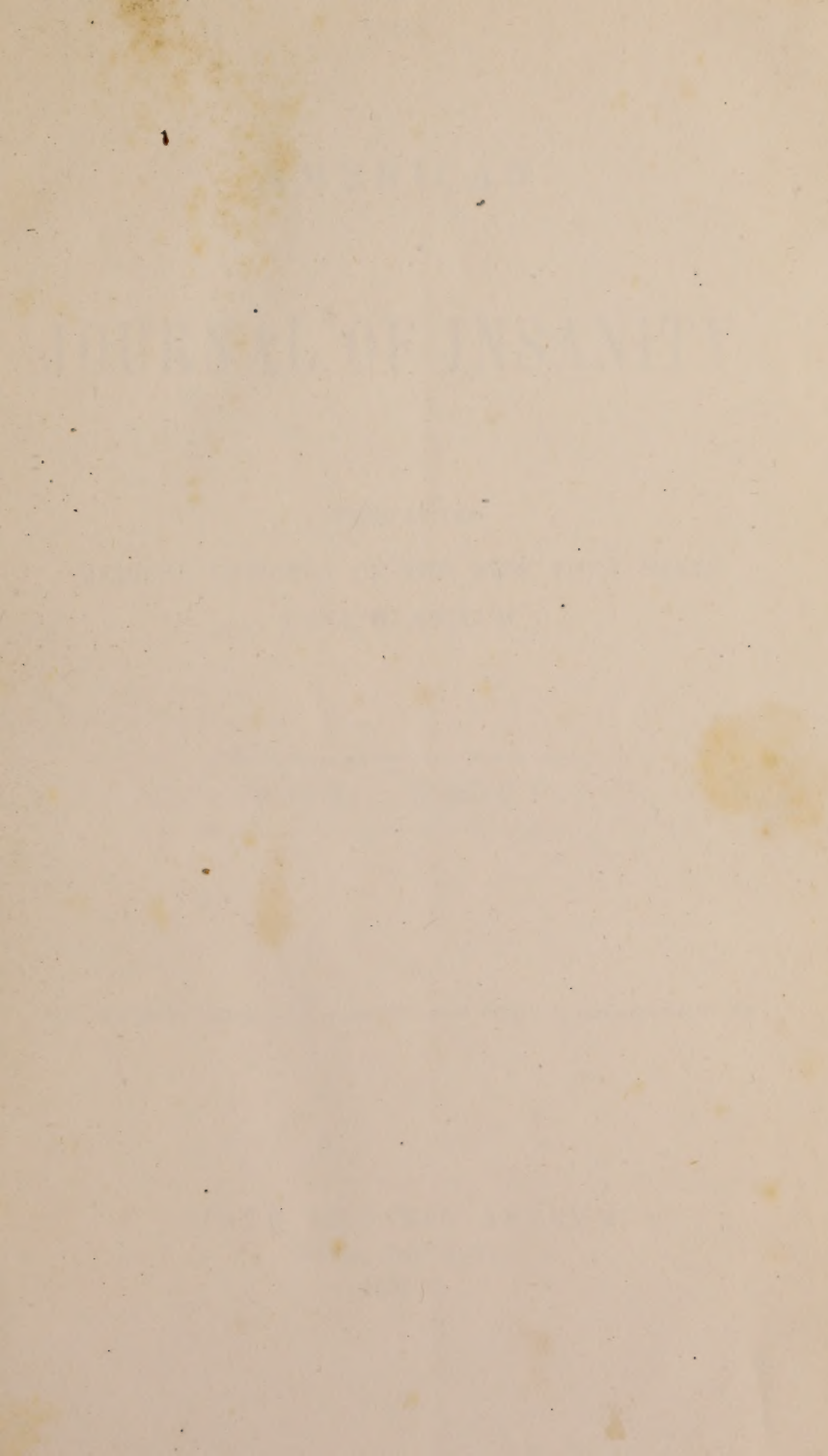
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THE
AMERICAN
JOURNAL OF INSANITY.

EDITED BY THE
MEDICAL OFFICERS OF THE NEW YORK STATE
LUNATIC ASYLUM.

VOL. XXII.

The care of the human mind is the most noble branch of medicine.—GROTIUS.

STATE LUNATIC ASYLUM,
UTICA, NEW YORK.
1865-6.

D. P. WHITE, PRINTER,
171 Genesee Street, Utica, N. Y.

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AMERICAN JOURNAL OF INSANITY, FOR JULY, 1865.

FEIGNED INSANITY—MOTIVES—SPECIAL TESTS.*

BY DR. W. S. CHIPLEY.

I propose to present a few thoughts on the subject of feigned insanity, and some of the special means which have been proposed for the detection of such impositions.

A full consideration of this topic would embrace the whole history of the varied forms and manifestations of mental disease; an analysis of the innumerable complications which so often embarrass us in an attempt to classify any given case; and the delicate shades which lie all along the line separating sanity from insanity. And, especially, it would require a minute and thorough discussion of all the principles which serve to guide us in making a diagnosis.

My design, however, is much more limited, and restricts itself more particularly to certain prominent tests which have been suggested, from time to time, as peculiarly applicable to suspected cases. Unused in ordinary diagnosis, the authors of these tests have too often manifested a disposition to rely upon them where motives for simulation existed, to the exclusion of the more laborious and certain method reserved for other cases.

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at the Annual Meeting, held at Pittsburgh, Pa., June 13, 1865.

The vast interests so frequently involved and the obscurity which too often conceals from the most gifted and penetrating the true mental condition, combine to attach immense importance to many cases of suspected imposition. And, whether we will or not, and in spite of the illiberal strictures of many distinguished men, such as Kant, Lord Campbell, Regnault, Redfield, and others, on medical experts in cases of alleged insanity, the members of our specialty will still be regarded as best fitted, by their peculiar studies and their abundant opportunities for observation, to unveil the mysterious and to enlighten the obscure in all cases of insanity involving legal proceedings; and no where will the intelligent courts of the country consent to dispense with such aids for arriving at correct conclusions. The responsibility is vast and fearful. Our conclusions may stamp the character of the suspected with infamy or preserve an honored name from disgrace—may involve the liberty of the subject—the right to control property and its distribution, and even life itself.

It is important then to our character, as psychologists, to be prepared to detect imposition when it is attempted, and to shield the innocent from the senseless public clamor so often raised against the victims of mental disease. In a certain sense our positions make us ministers of justice and humanity; in so far, as we may be able to expose the subterfuges of the simulator and make apparent the irresponsibility of those who are really deprived of reason.

The self-conceited and, however learned in other departments of science, ignorant of the varieties and true characteristics of insanity, may sneer at the medical expert, and not unfrequently render his position as a wit-

ness exceedingly unpleasant; yet, the position cannot be evaded, and he will find effectual protection from mortification, and secure the respect of courts and juries, only in a clear and thorough knowledge of his profession; and well defined notions of the line separating facts from theory—phenomena from metaphysical speculations, and a determined purpose not to be drawn, by the ingenuity of counsel, beyond the bounds of what is well and accurately known, into the illimitable field of conjecture, dotted all over with supposed cases which never did and never can exist and which always contain adroitly concealed traps into which the unwary are sure to fall.

The difficulty of distinguishing real from feigned insanity is a never-failing resource of the lawyers, and, when it is deemed necessary to their cause, they will seek to show that it is not only difficult but impossible, and, to this end, they will exhaust on the expert, all their powers of sarcasm and ridicule. Well I suppose we must accord them this privilege. They are feed to make the worse appear the better cause; and too much attention on their part to professional courtesy, and the claims of truth, justice and humanity, might subject them to the charge of failing to earn their fees.

But, if lawyers have overrated the difficulty of detecting feigned insanity, we should be cautious not to run to the opposite extreme, as I think Orfila, Haslam and others have done. It is put a little too strong when it is declared that “the extreme difficulty of detecting attempts to feign insanity, can no longer be anything more than the plea of ignorance or indolence.” Who would feel sure, with all the knowledge of the most gifted and the industry of the most zealous, of detecting simulation in well sustained characters, such as Hamlet or Edgar,

and yet these are mere fictions albeit drawn with all the characteristics and perfection of truth.

An imposter in the Devon County Asylum deceived Dr. Bucknill and his associates for a period of two years, although the part he assumed required an amount of self-denial and physical endurance of which one would have supposed a sane man wholly incapable. Many similar cases are on record.

We must not then be too confident, or demand too much for the present state of our knowledge of the workings of the human mind and its abnormal manifestations. Unreasonable demands are too often made on the psychological expert. Peremptory decision is frequently required when we can do no more than balance probabilities. Dr. Hill says truly; "Advocates, in both civil and criminal cases under investigation, are too much inclined to demand of the faculty a *positive* testimony where truth and nature speak with all that ambiguity which never fails to influence every honest mind with cautionary hesitation. And although evidence, founded on a prudent basis, is frequently found giving offence to legal professors, yet human imperfections will occasionally intervene to deter every liberal scientific practitioner from being dogmatically positive."

We have instances of feigned insanity in the earliest periods of the recorded history of the world. In fact the most ancient allusions to insanity relate to simulators of which we have instances in the persons of the great Ulysses and David, King of Israel. These, and other cases, make it apparent that insanity has always been regarded as freeing its subjects from responsibility; and it is the universality of this humane sentiment which has made madness the favorite resort of great criminals whose

wickedness and crimes leave them no other hope of escape from well deserved punishment.

The motives, which induce persons to feign a malady so repugnant to the common feelings of mankind and which carries with it, in the public mind, more or less of odium, are various; some of them more or less trivial and unimportant, others involving the highest private and public interests.

When summoned to take part in the Trojan war Ulysses feigned insanity for the selfish purpose of avoiding a separation from his idolized wife Penelope. Yoking together a bull and a horse he ploughed the sea-shore furiously, and sowed it with salt. His son, Telemachus, was placed before the plough when the father immediately turned aside and thus avoided injuring his child. The test, thus applied by Palamedes, convinced the world that the madness was feigned and brought Ulysses to the performance of duty. In our day such a test would meet universal derision.

The motive of David was personal safety. Fleeing from the jealous wrath of Saul "he went to Achish, the king of Gath." But finding the king disposed to avenge the death of his great warrior, Goliath, "he changed his behavior before them, and feigned himself mad in their hands, and scrabbled on the doors of the gate, and let his spittle fall down upon his beard."

More than five hundred years after David, Brutus, through whose influence the regal power was abolished and a free government established in Rome, saved his life by feigning insanity, thus escaping the persecutions of Tarquin the Proud.

The immortal Bard attributes the same motive, self-preservation, to Edgar, and the language attributed to

him shows that Shakspeare's knowledge of the characteristics of insanity was the result of accurate observation of the conduct of lunatics. Menaced on all sides by the wicked machinations of his unprincipled brother; and cut off from retreat by the stringent orders of his deceived father, Edgar says :

“ While I may 'scape,
I will preserve myself; and am bethought
To take the lowest and most poorest shape,
That ever penury, in contempt of man,
Brought near to beast; my face I'll grime with filth;
Blanket my loins; elf all my hair in knots;
And with presented nakedness out-face
The winds, and persecutions of the sky.
The country gives me proof and precedent
Of Bedlam beggars, who, with roaring voices,
Strike in their numbed and mortified bare arms
Pins, wooden pricks, nails, sprigs of rosemary;
And with this horrible object, from low farms,
Poor pelting villages, sheep-cotes, and mills,
Sometime with lunatic bans, sometime with prayers,
Enforce their charity.”

Instances are referred to where the motive seemed to be a desire to excite public interest and curiosity and to obtain notoriety. I am disposed, however, to regard such cases as examples of real insanity. I do not think any sane person would sacrifice his social position and otherwise injure his prospects in life under the influence of such a motive, and that for a purpose yielding no advantage whatever. A deliberate sacrifice of substantial interests for a position generally considered as damaging, if not odious, and which can by no possibility minister to the welfare of the subject is of itself an evidence of unsoundness of mind.

Many malingerers are detected by army surgeons seek-

ing, some from cowardice and others from a selfish love of ease, to escape the perils and arduous duties of the soldier. Such cases multiply as the magnitude of an army is increased and the war is protracted. During our late civil conflict, which attained a magnitude unprecedented in the world's annals, the ardent patriotism of the people sufficed generally to fill up the ranks of our noble defenders ; and hence fewer attempts to play the madman occurred than ever before in armies of like proportions. Yet instances were not wanting among the unwillingly drafted and the mercenary substitutes ; some of whom obtained discharges while others were detected and sent forward in the line of duty.

Motives of gain in the form of charity, or relief from public funds, or aid from benefit societies, have induced indolent, vile and degraded individuals to personify some pitiable form of insanity. Others have sought, by the same means, to secure a comfortable shelter in hospitals provided for the relief of the insane. Instances of this kind have occurred to the writer. A hale hearty man changed his conduct from the moment he was informed that it was my purpose to give him an immediate discharge. The imposition was soon detected and he left the hospital regretting that he was not permitted to realize the hope he had indulged of spending the remainder of life in the ease and comfort afforded by the institution. A similar case presented itself among the females and she undertook to prove by a labored argument that she was of unsound mind. Years have elapsed since these per-

sons were discharged and they have remained free from any imputations of insanity.*

Cases may become the subject of legal investigation in which insanity is feigned for the purpose of obtaining unjust compensation from some one by whose agency, or through whose neglect, some personal injury may have been inflicted. I have met with no such case; but instances are alluded to by others, and such may occur again among the increasing number of persons who are seeking legal redress for injuries received in personal conflicts, or by the numerous disastrous railroad accidents, now so common. We know that these persons generally spare no pains to magnify the damage done them, in order to obtain a corresponding increase of compensation.

Many instances are of record in which the motive was the evasion of civil responsibility—the annulment of some contract with which the party had become dissatisfied.

Dr. Snell reports an interesting case of this description. A widow, regretting the purchase of a house, feigned insanity. Overacting her part, she was readily detected. She assumed a degree of ignorance wholly inconsistent with her apparent condition—answered questions falsely which, had she been really insane, she would have promptly answered correctly. She pretended not to know the names or number of her own children, or her own age; counted twenty incorrectly, could not remember that she had bought a house, or whether she had eaten anything during the day, and a like mis-

* Ten years ago Dr. Workman gave this Association an interesting account of two patients who simulated insanity in order to be sent back to his institution.

take is not uncommon among pretenders. In the above case the witnesses and the woman were convicted of perjury, and subornation of perjury, and sent to prison. She ultimately admitted her simulation.

But by far the largest number of suspected simulators are those whose vicious lives have culminated in the perpetration of some great crime; or, actuated by avarice, have unlawfully appropriated the property of others; or, yielding to a revengeful disposition or violent temper, have shed the blood of a fellow being for some trivial offence. Kleptomania, pyromania, homicidal impulse are favorite pleas in behalf of great offenders against the laws and peace of society. When guilt is beyond question, and the act is without justification, the plea of insanity is too often seized upon to shield the guilty wretch from merited punishment, and his unfortunate family from undeserved disgrace. Irresponsibility, by reason of insanity, is the city of refuge to which great criminals flee when the avenger can be no longer evaded by other means. These are the cases that give rise to great public excitement, afford scope for the display of legal ingenuity, and test the discriminating judgment of the psychological expert.

Too much stress has been laid on the discovery that motives for simulation existed, and I fear that judgment has been rendered in some cases with little other data to justify it.

It has been held that in cases of insanity, suspected to be feigned, a development of the probable motives of the pretender is the first consideration, and, where these appear strongly to favor such an attempt, they must have considerable weight, and *vice versa*. This principle has been laid down broadly by recognized authority, but

I do not think it is correct. The discovery of the existence of motives, which may be supposed to be sufficient to induce an attempt at simulation, should have no other influence than to authorize suspicion, inciting to a closer scrutiny and a more thorough, cautious and energetic investigation into all the antecedents and present condition of the suspected person. Surely the existence of such motives should have no weight of itself in determining whether the insanity be real or feigned. Instead of being the first consideration, it ought to be the last, and should have no weight whatever until the dissembler has been exposed and his deceit unveiled by other means. When a great crime has been perpetrated it would be far more humane, and quite as consonant with justice and reason, to infer the existence of insanity than to deduce from the magnitude of the offence and the strength of motive, simulation on the part of the accused. The inference of guilt from such premises has laid the foundation for horrible cruelties practiced on real as well as pretended maniacs.

It may be well to say that motives are not always apparent, and cases of simulation have fallen under observation where none of the motives, to which I have alluded, existed; at least, no motive was detected. A case, reported by Dr. Bell, an abstract of which is given in Dr. Ray's work on the "*Jurisprudence of Insanity*," is a remarkable instance of an apparent absence of all motive. The case is interesting, and may serve to put us on our guard against like attempts at imposition. The subject was a lad of thirteen years. "He refused food for long periods, had spasms, laid with his eyes fixed and legs drawn up, would hold his breath and strike. On admission to McLean Asylum, he presented the ap-

pearance of a sickly, emaciated boy under puberty, unable to stand, exhausted by suffering, breathing quick, and passing his evacuations in bed. Every few minutes he had a frightful spasm, commencing with a convulsive shaking of the head, pawing of the hands, and turned up eyes. Soon his hands would vibrate against his sides and chest; his countenance would be dreadfully distorted, and then would commence a horrid scream that might be heard over the whole premises. In this condition, with occasional remissions, and the addition, at one time, of diarrhea, he remained for about a month, when the imposture, which had been suspected, was detected. Being watched through a hole in a blanket hung before his window, he was observed to jump up and stride about his room as actively as anybody, but at the slightest noise resuming his old position, screaming and groaning. Dr. Bell finally burst in upon him before he could regain his bed, chided him for his deceit, and bade him walk in the hall. The spell is broken, the feeble knees are made strong, the convulsed and distorted visage is calm and smooth, and the young deceiver goes forth erect, clothed and in his right mind."

Whether any motive for deception existed in this case or not we cannot know, but none was discovered. We can scarcely conceive, however, that one would assume a character so painful to sustain without some deliberate purpose, or an end to be accomplished. Is it not probable that the youth belonged to that class who are ready to make immense sacrifices of comfort and character for the ridiculous purpose of exciting wonder and commiseration and to obtain notoriety? If this youth was a mere pretender, I do not recollect a case that will place in a stronger light the difficulty of detecting some at-

tempts at simulation. The actor was a mere child, with no apparent motive to deceive, the part was well acted, although great self-denial and painful contortions were prominent features. Everything was calculated to lull suspicion, and it is highly probable that the young deceiver would have escaped detection in the hands of one less skilled than Dr. Bell, and without the consummate discriminating judgment for which that gentleman was so justly celebrated.

The detective measures resorted to by the ancients in cases of insanity, suspected to be feigned, were often characterized by great severity, and modern science and humanity have not wholly ignored like practices.

Among the mildest of these means were threats of severe punishment. Foderé, after the example of Gacchius, resorted to this test in the case of a female who acted her part—if she was only acting—so perfectly that the doctor was absolutely on the point of certifying the case. He returned to her door, however, and said with a stern voice, “To-morrow I will visit her again, and if she continue to howl, if she be not dressed, and her chamber not put in order, you must apply a red hot iron between her shoulders.” He found things in order the next morning, and on this proof alone, with strong evidence to the contrary, he immediately decided that it was a case of simulation. But was this decision justified by the simple fact that the patient changed her conduct under the terror inspired by severe threats? Do not the insane often exercise considerable self-control under even the proper and mild discipline of an asylum? It is a common thing for insane persons to regulate their conduct, even in opposition to delusive sentiments, by fear or the hope of reward, and it is no just inference

that the mental aberration is unreal because some power of self-restraint remains and is exercised. How many real maniacs have succeeded in concealing, from the most astute and practiced observer, their mental weaknesses when they had a purpose to effect, as, for example, to obtain a discharge from the wards of a hospital, or, as in the celebrated case of Wood vs. Dr. Monroe, for false imprisonment. The severest examination failed to detect Wood's weakness until Dr. Battie suggested to Lord Mansfield to ask what had become of the princess with whom he corresponded in cherry juice? His delusions and insanity immediately became apparent to all, and he was cast in the suit. But this was not the end of the matter. Having discovered the cause of his failure, he renewed the suit in London, and all the ingenuity of the bar and the authority of the court failed to elicit anything to expose his delusions, although they still existed in full force. For a purpose; the insane may not only conceal their insanity, but absolutely deny delusions which they really and firmly hold. Foderé's course is objectionable in a double aspect. First, no threat or promise should be made to a patient which will not be promptly executed or fulfilled; and, second, threats of great violence may have such an effect as to mislead us, in as much as they may convert the case into one of conceded insanity.

A young soldier was supposed to be a malingerer. The threat to flog him caused him to steer a middle course, very troublesome to all about him. Poor fellow, what a struggle he probably endured, what a conflict between insane impulses and the fear of castigation! In this condition he came into Dr. Hill's hands. "Two vitriolic powders, of five grains each, given in a dark

room, fasting, and nothing allowed to drink, the strait-waiscoat, and a link attached to one leg, changed his tune very soon. A repetition of it three times a week, with suitable diet, and he became a new man." How long this barbarity was continued before the regeneration was complete, the doctor does not inform us. Excepting the dark room, the strait-waiscoat and the manacle, this treatment corresponds to that which Dr. Hill prescribed for other persons whose insanity he did not question, and who are represented by him to have recovered.

Who will venture to say that the above case was not one of real disease, modified in the first instance by threats of flogging, and finally removed by "the powders and suitable diet" in spite of the cruel physical restraints applied?

Severe flogging has been resorted to in many instances. This barbarous test was justified by the fallacious plea that if the suspected person was only acting a part, he deserved the pain inflicted, and would confess his deceit rather than submit to so terrible an ordeal; and, if he were really insane, the lash would prove serviceable as a counter-irritant. Sauvage ordered a girl of seventeen to be whipped for counterfeiting after he had detected the imposition. Even the actual cautery has been applied and justified by the same process of reasoning. We have an instance in the case of Gerard. After a long time he was placed in the hands of Drs. Brachat, Faivre, and Biessy, who, failing to obtain any information from the patient, who refused to speak or answer questions, concluded to seek to expose his deceit by the use of the cautery. These gentlemen evidently felt that their barbarous proceeding required apology, and alleged that if the patient were really insane, the

remedy was calculated to revive the action of the brain and vocal organs. I will not deny the virtue of this potent remedy, or question its power to reäwaken to action the slumbering brain and paralyzed vocal organs ; but I do say that if such results may follow this agent, as a test of sanity, it becomes an unmitigated cruelty. While it may restore some to reason, it may be endured by malingerers endowed with great powers of endurance, while the timid who are really insane may be made to play the hypocrite, conceal his delusions, and mislead the observer into the belief that he has exposed an imposter.

Now, if the advocates of these severe tests reason correctly, it is as remarkable as it is unjust that these valuable means should be reserved exclusively for criminals suspected of deceit. If they are effective remedies, why should the advantages they confer be denied to those whose insanity is undeniable ? If the lash is really a curative agent, more effective than others, then it will cease to be a cruelty and become quite as allowable as the application of a blister where such a remedy is demanded. But the truth is, such means are wholly unjustifiable in the light of reason and humanity. Their use, by the ancients, may be excused by the spirit of the times in which they lived ; but those who have recourse to them at the present day mistake the temper of the age, and degrade themselves to the infamous character of torturing inquisitors. It is no part of our professional duty to punish the guilty or to torment the suspected.

Marc, in discussing the case of Gerard, admits that no one has a right to aggravate the punishment prescribed by law ; that rigorous and, especially, painful means of

detection are both illegal and cruel; and yet he holds that in the interests of society they are sometimes justifiable. If so, surely an inquisitor should be appointed by law to conduct this part of the investigation in such cases, and thus at least remove the taint of illegality. The argument is that which established the inquisition and fixed the test for witches. If torture must be resorted to, I trust that the members of our profession will decline the office of inquisitor.

Heinroth and other German psychologists regard mania as a loss of moral liberty; never depending on a physical cause; not a disease of the body, but purely of the mind, and they propose to treat it by punishments. Now if by these means cures are ever effected, then they must cease to be reliable tests for simulators, since no one can say, in any given case, whether a simulator has yielded to force or an insane man has been cured. Identical means cannot be at once reliable tests for feigned insanity and active curative agents. Leuret professes to have cured insanity in a very brief space of time by what he calls moral means. But how do we know whether these cases were real or only feigned insanity if the prompt yielding of the victim under intense agony be regarded as conclusive evidence of simulation?

Take Leuret's first observation. All remedies had failed for a period of three months, but the vigorous application of the douche in the French style apparently removed the last vestige of insanity in the course of a few hours. Suppose this person had offended the law, and was suspected of deceit, and this painful administration of the douche had been selected to test his mental condition, would not the advocates of these severe measures have pronounced him guilty of an attempt at

deception? Leuret declares actual disease and a cure. Yet it is highly probable that the poor fellow was only simulating when he professed to have abandoned his insane notions and conformed to the directions given him in order to escape a repetition of the torture. Leuret's moral treatment and these cruel tests, applied to cases of supposed simulation, both approach their victims with the same language and in the same spirit—dissemble or submit to torture—surrender your delusions or your life.

The whirling-chair, when vigorously moved, will produce intense nausea, and even syncope in one or two minutes. The objections to this instrument of torture are so obvious that no one will venture to resort to it in any case of insanity. But its very capabilities of inflicting pain have commended it as a suitable test in suspected cases. It was applied in Glasgow, Scotland, in the case of McDougal, accused of sinking ships to defraud the underwriters, and Dunlop claims that it demonstrated his sincerity. Yet he admits at the same time that the accused “exposed himself to the medical men by the common fault of impostors, not ‘having a method in his madness,’ but mixing up the two irreconcilable characters of

‘The moping idiot, and the madman gay.’”

If he thus exposed himself, what legitimate excuse was there for torturing him in the whirling-chair?

The objections to flogging, the actual cautery, &c., lie with equal force against this instrument, and leave no room for further remark.

The supposed insensibility of the insane to the influence of certain drugs has often been appealed to when

feigning was suspected. Opium and tartar emetic are favorite articles with those who have confidence in such tests. Marc gives the details of a suspected case in which six grains of opium were given at a single dose, without apparent effect. A few days afterwards, two doses of six grains each were given, with an interval of six hours. The patient, heretofore silent, cried out in great alarm that he was dying of poison administered in his soup, and every symptom of insanity speedily disappeared. Now, who does not perceive that this result only changed the question. Has the drug exposed a malingerer, or has it cured a maniac? It is true of tartar emetic, as of opium, and other active and powerful remedies, that very sudden cures may sometimes follow its administration in heroic doses. And hence these drugs may be very properly administered in appropriate cases, but never for the mere purpose of testing the sanity of an individual. It is true also that the supposed insensibility on which it is recommended to resort to these tests does not always exist, and it is impossible for us to discriminate these exceptional cases. Hence we cannot be authorized to pronounce against an individual merely because he shows a sensibility to the influence of medicine unusual with the insane.

Chloroform has been administered by inhalation in France, on the hypothesis that the insane will persist in their delusions while under its influence, while the simulator will be overcome and expose his deceit. Nothing can be more unreliable. A young lady, of an excellent family and of high intellectual cultivation, was the subject of most painful delusions,—her agony was extreme. The predominant delusion, and that which caused her to utter loud cries of distress,

was that she had bitten off her mother's head. The administration of 'chloroform never failed to remove the delusion, and to bring on a period of calm, during which she appeared quite rational. She was undoubtedly insane, but she did not persist in her delusions under the influence of this potent remedy. No permanent advantage was gained, and the patient died after a few weeks in a state of exhaustion. It is clearly improper to intoxicate a person for the purpose of determining his mental condition when sober.

I know of but one case in which the diagnosis was founded almost exclusively on the condition of the pulse. This was made by that acute observer, Dr. Rush, in the case of an individual condemned to be executed for treason. His pulse showed some twenty beats above the natural standard, and on this symptom Dr. Rush decided that the man was not a simulator. He was joined by two other physicians in a certificate declaring that "that symptom constituted an unequivocal mark of intellectual derangement." The convict was pardoned by President Washington, and time soon confirmed the correctness of the diagnosis. The pulse of the insane is usually, in seven-eighths of all cases, says Dr. Rush, above the ordinary standard, and, while it will not do to rely on this circumstance alone, it may aid our diagnosis, in doubtful cases, when associated with other indications pointing to the existence of mental disease. It is probable that Jacobi is correct in attributing the quickness of the pulse to coincident bodily disease rather than to the mental condition of the patient. But it does show the existence of disease, and in so far it goes to confirm the teachings of other symptoms.

Drs. Hill and Knight, and others, rely on the peculiar

odor emitted from the persons of the insane. Dr. Hill declares that "it is never wanting in the mentally deranged, in defiance of all personal delicacy." If the rule laid down for developing this peculiar odor be strictly followed, I think I can venture to promise that no one need fear a failure to perceive it in most convincing force. It is said, (I quote the important direction literally), "the best mode of making this discovery is to enter the bed-room of the subject on his first awaking after having slept in a small, ill-ventilated room, in sheets and body linen occupied by him for some time, and curtains now to be opened by the inspector." The only obscurity about this recipe for developing the peculiar odor of the insane is as to the length of time the same sheets and body linen are to be used. But this only makes the result the more certain, as we are left at liberty to continue without change of sheets or linen until the peculiar odor is brought out. I suppose every one can perceive some unpleasant odor about the insane generally, but not in all cases, especially in a close room, as they may perceive the same about an unhealthy person under like conditions; but I confess I have not been able to detect anything in the odor of the insane that would authorize me to pronounce on the mental condition of any one, and least of all would I feel that I was in a condition to exercise a sound and deliberate judgment amid the concentrated effluvia generated and compounded by Dr. Hill's receipt.

Cabanis declares that one is unfit to practice the profession if he cannot "discern in the features or looks of his patient the signs of a disordered mind," and many others make high pretensions to this divine art. Fonblanque relies much on "a peculiar cast of countenance."

Dr. Cox says, “the expression of countenance furnishes an infallible proof of mental disease.” To the practiced eye the physiognomy may speak with great force ; and, associated with other symptoms, it may go to confirm our diagnosis. But it is a resource that should be resorted to with great caution, especially in suspected cases. It is so difficult to guard ourselves perfectly against the prejudice that arises spontaneously in our minds when we are told that one has been guilty of some great crime, and that he is suspected to be adding to his guilt by feigning insanity. It has been said that in these cases it is difficult for the expert to suppress altogether a desire to find them simulated—that there is something in the eclat of such discoveries that works insensibly on the unguarded mind and gives to testimony more weight than it is really entitled to. In this state of mind the countenance would offer, to say the least of it, doubtful testimony. It is of a kind, too, that cannot be tested and verified by others. The evidence of the physiognomy comes to each observer in certain undefined impressions that have force only with himself ; the impression may be erroneous, but he can have no aid for its correction from others. Nor can we give the countenance in evidence, for language would wholly fail to describe its infinite shades of variation. We cannot account to ourselves for the impressions made upon us by the countenance, and must utterly fail to make others sensible of their sources.

But physiognomy is an important study to the psychologist, and will often avail him in the practical duties of his profession. It can be acquired, however, only by minute and long continued vigorous observation. It cannot be taught by books ; and I believe that very

little aid can be had from even the elaborate works of Lavater. The science of physiognomy may be taught, but practical physiognomy is acquired only by personal observation—it is an individual acquisition, grows up and dies with its possessor. All that I mean to say on this subject is that some physiognomists have claimed too much for their art, and that no one can be justified in making a diagnosis relying alone on the teachings of the countenance, however zealously he may have studied its workings.

Zacchias says few diseases are more easily feigned than insanity, and none are more difficult of detection. I think it would be more correct to say, having reference to the mass of mankind and especially to those most likely to attempt simulation, that nothing is more difficult than to feign insanity successfully; and, with suitable opportunities for observation, nothing is more easy than detection. But this is only a rule of general application, and, as usual, there are prominent exceptions.

Comparatively few persons are fitted by education and genius to act the part of a madman so perfectly as to escape the scrutiny of a well informed and practical psychologist. Very few who would be disposed to assume the part have had sufficient opportunities to observe the characteristics of insanity as they actually occur. It is still more rare to find combined with this knowledge that consummate art of acting, and the vast powers of endurance necessary to insure success.

People generally imagine that the insane are constantly agitated, violent or furious; that they are irrational and absurd alike on all subjects. Hence they are apt to be ridiculously extravagant in their demeanor; or expose their deceit by pretending ignorance of matters

with which the insane would show perfect familiarity ; or they fail in that consistency and method so characteristic of insanity. Nature gives forms and varieties of marked distinctness to insanity ; it is almost impossible for art to avoid intermingling two or more of them.

As the difficulties of feigning insanity successfully are great, so are our resources for detecting such attempts sufficiently abundant without a resort to those cruel means of exposure which are in their results inconclusive, abhorrent to humanity, and well calculated to lead us into error.

In every case of alleged insanity, whether there be motives for feigning or not, it is a sound principle to assume that the individual is possessed of a sound mind until the contrary is proved. Sanity is the normal state of man, and insanity the exception, and the latter cannot be allowed to exist without satisfactory evidence. But, as in the case of one accused of crime, if, after thorough investigation, a reasonable doubt remains, it should innure to the benefit of the person supposed to be insane, especially if it is a question of interdiction or seclusion. No one should be deprived of liberty or the right to manage his own affairs without clear and decided evidence of mental incapacity.

Starting from this point, the investigation should be conducted with calmness, without prepossession for or against the subject, and should be the more deliberate and thorough as the manifestations are obscure or anomalous. How far can the subject's history be traced ? (So much the better if he can relate it himself. What have been the habits and vices of the parents ? Have insanity, hysteria, or other nervous diseases afflicted members of his family ? Was the attack sudden ? What was the char-

acter of the invasion and progress? What changes have occurred? Does he sleep well? Is there a coherence of the manifestations, not only with mental disease in general, but with the form or variety of insanity which is supposed to be feigned? What is the state of the general health and the condition of all important organs? How does his conduct, when he supposes himself alone, correspond with his demeanor in the presence of others? But it is not my design to go into the vast field of diagnosis; it is only my purpose to indicate the opinion that the same principles and proceedings are applicable alike to suspected and unsuspected cases, and that the mere existence of motives for feigning does not authorize a departure from the guides which regulate our course in other cases.

What I have desired to inculcate in this imperfect paper is, that diagnosis, as applied to insanity, is a science founded on knowledge and observation, and not a mere art,—that in making a diagnosis we have no rules peculiarly applicable to cases suspected of feigning; that in no case are we authorized to resort to unusual or cruel appliances; and that potent remedies which may cure are not reliable tests of the mental condition of the subject.

THE CASE OF BERNARD CANGLEY.*

BY DR. I. RAY.

Not less interesting to the student of morbid psychology, than the well-defined, well-recognized forms of insanity, are those obscure, anomalous conditions of mind which occasionally appear, but in regard to which he fails to obtain any light from the standard books. Though more numerous, probably, than they are generally supposed to be, yet they are comparatively so rare and so imperfectly understood, that, for the most part, after exciting a little temporary curiosity, they pass away and are forgotten. And yet they must ever constitute a very important class of mental disorders, for the reason that their existence, however infrequent, must necessarily modify the conclusions that might be drawn from the more common forms of mental disease. In fact, no physician needs to be told that many important steps in the progress of his science have been made by the careful and persistent observation of what, at first, seemed to be anomalous or exceptional cases. In this way have neuralgia, pyæmia, diphtheria, albumenuria, and many other diseases obtained a local habitation and a name, and thus become easily recognized and intelligently treated. In our more special department there occur to us as instances of a similar kind, delirium tremens, general paralysis, homicidal mania, pyromania, kleptomania, and Bell's disease. These views would furnish a justification, if any were needed, for occupy-

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at the Annual Meeting, held at Pittsburg, Pa., June 13, 1865.

ing a few minutes with some account of a case lately reported in the public prints, and presenting some traits of peculiar interest to the medical jurist.

In the *Belfast* (Ireland) *Journal* of March 4th, 1864, is a report of the trial of Bernard Cangley for the murder of Peter Reilly. As all the essential facts are given in the evidence of Reilly's wife, they cannot be better presented than by quoting it entire :

I am the wife of Peter Reilly. He lived at Coolnacola in this county. He had eleven acres of a farm. He was pretty well off. He was in the habit of lending money to the people in the country. At all times he was in the habit of keeping money in the house. I was yesterday married a year and a half to him. I never saw the prisoner since thirteen or fourteen years ago. He lived in the same neighborhood with me. I recollect the 22d of January; after dusk my husband and myself were sitting by the fire. The prisoner opened the door and came in. A little boy called James Molloy was in the kitchen with my husband and myself. He was a servant. We three were the only occupants of the house. The clock was after striking six. When the prisoner came in he asked, "Is it here that Peter Reilly lives?" Either myself or my husband answered, "Yes." After the answer was given, the prisoner got a seat and sat down at the fire. I lighted the candle, seeing a stranger. When he sat down at the fire, my husband asked him, did he come far? He said, "A pretty good piece; do you know me?" "How should I know you?" said my husband. "Do you not know Cangley, that the ass took the hand off?" said Cangley. When he said this, my husband shook hands with him, and said, "You are welcome." My husband told me to get some supper ready. I then went into a room beside the kitchen; I signed at my husband to follow, to know from him what I would get ready. I got tea. We took tea together in the parlor, off the kitchen. We then came out and sat down by the fire as before. Cangley read to us out of a newspaper. I sent Cangley with Molloy to sleep in the apartment above my sleeping room. They went to it by a ladder out of the kitchen. I told Molloy to go to bed a few minutes after ten. Cangley went up after Molloy. Before Cangley went up to bed he went out of the house for a couple of minutes, and then went to bed. During the time we were talking at the fire, we

were talking about his mother and about his family. There was no quarrelling. He told us that since he had left us he had herded with a gentleman farmer in Meath. He said that he was employed there, and used to go to Smithfield market with cattle. Myself and my husband remained up after the others went to bed, about half an hour. I fell asleep after twelve o'clock. I think my husband went to sleep at the same time. Some time after, I was awakened by something like a foot moving on the loft over my head. That was after one o'clock; nearer two than one. All was over about two. When I heard the noise I said, "James, good boy, take care you don't fall." I thought it was Molloy. My husband was not awake when I said that. When I spoke, Cangley answered and said, "It is not James, Mrs. Reilly, it is me." From his voice, I thought he was standing at the room door. The door was at the ladder, and behind it. I asked what was it that he could not sleep. He said that he saw flashes of fire through the window. There is no window in the loft. Any person in the loft could see the kitchen window. Any person in bed could see the light on the floor, but not the window. My husband awoke when I spoke a word or two. I was in bed all this time. The door was laid to, but not fastened. My husband said it was the moonlight. It was a nice moonlight night. When my husband said that, he got out of bed. I remained in bed. He opened the room door to go out into the kitchen. When he went out he had nothing on him but his shirt. He had nothing in his hand—no weapon of any kind; as far as I know he walked to the street door. The first thing that next attracted my attention was his shouting, "I am murdered." I then jumped out of bed. I had nothing on me but my night clothes. I saw Cangley standing beside my husband. [Witness here became much affected.] Cangley ran at me as hard as he could. He made a stab of a knife at me. He stabbed me in the belly. I had no weapon in my hand at that time. When he stabbed me I caught him by the side of the neck somewhere. He made three stabs more at me. He stabbed me with one in the side of the belly. He had on his trousers, suspenders and shirt. I attempted to catch the knife, and he pulled the knife through my hand. Altogether I was stabbed twice in the belly, and got cut in hand and arm. After my hand was cut, he got the knife and went back from me. I then took up the hedge-slasher. I made a blow at him, but did not hit him. I had not this weapon before he stabbed me. He was standing close at the door, and the ladder at the door prevented my getting the blow at him. He then went out. I

shut the door after him. I heard the cry of my husband about a minute after he went out into the kitchen. My husband was at the back of the kitchen door, standing. After Canglely went out, my husband came toward the room door. I went to light a candle, but he fell on the floor before I lighted it. From the time Canglely went out, it was two minutes when my husband fell. I went to lift my husband. he could not speak. He was bleeding so that one could hear the blood coming out like out of the pipe of a kettle. The little boy then came down. I sent him out for the neighbors. I fainted. When I came to again, I found Pat. Smith and the little boy in the house. My husband died at three o'clock. He lay on the floor. I could see the features of Canglely when he was coming towards me. It was a moonlight night. I did not see any weapon in his hand. I can only speak from what I felt. I had knives in the house. None of them was used.

On cross-examination, she said that the prisoner had not been in that part of the country for ten years ; that he did not seem to have any grudge about the ass having bitten off his hand ; and that they were not talking of money matters.

Immediately after the act, Canglely went to the nearest police station and gave himself up, saying that he had stabbed a man. He told the man's name, and where the man lived, and said the weapon he used was a clasp-knife, which he had thrown into a bog.

It was testified that shortly before the homicide, Canglely had been in prison, but for what cause, or how long, it was not stated.

When asked by the Court why sentence of death should not be pronounced upon him, (for, of course, he was convicted), he replied that "he was unconscious of the act."

The counsel for the crown, in referring to the motives for the act, suggested that he might have been actuated by a feeling of revenge on account of the mutilation he

had suffered while in Reilly's service, or that his intention was to get possession of Reilly's money. It was not pretended, however, that either of these suggestions was supported by one tittle of evidence. The counsel for the prisoner rested his defence on the plea of insanity. No medical expert testified; but the surgeon who was called to the Reillys was asked some questions respecting insanity. The Court laid down the rule of law according to one of the oldest patterns, viz: If the prisoner did not understand the nature of the act, or, if he understood it, did not know it was wrong, then he is not responsible for the act. The verdict of GUILTY was approved by the Court, who seemed to have been much scandalized by the pretence of insanity.

Regarding the case from a very different stand-point, we are necessarily led to very different conclusions. The act in question was prompted, of course, either by some rational motive of interest or passion, or by an insane impulse, and although we are obliged to found our conclusions upon a very meagre account of the case, yet we can scarcely doubt their correctness.

The counsel for the Crown did not pretend to assign a motive for the act, for he was well aware that the circumstances attending it absolutely forbid it. Who ever heard of a man arising in the night for the purpose of robbing or murdering his host, and walking so heavily as to wake him up, and calmly speaking to him as he approached his door? It is impossible to believe that any one in his senses would proceed to execute such a purpose in such a manner. And the absurdity of the notion is heightened by the fact that the person, after accomplishing his end, straightway goes to the police and tells them what he has done. The annals of crime, we ven-

ture to say, furnishes no parallel to such a case. If his purpose were to kill, he scarcely accomplishes it; and if it were to rob, he leaves the house without even making the first attempt.

The only other theory on which the prisoner's conduct can be explained is, that of insanity. The indications of this disease, it must be admitted, were few and indecisive, but this is just what might be expected in the form of mental disease supposed to have existed here. It must have been a paroxysm of transitory mania, suddenly beginning and as suddenly ending, after the briefest possible duration. The cases of this kind on record, though few, certainly are so well attested, that we can scarcely deny the existence of the form of insanity which they illustrate. And it is a noticeable feature of most of them, that the patient is bent upon destroying life. The grounds on which we must rest our belief that Cangle's was a case of transitory mania, apart from the absence of all rational motive, are his own declarations, that, at the moment, he saw flashes of fire, and that he was unconscious of the act. This statement about the flashes of fire does not look like one made up for the occasion. Such a notion would not be likely to occur to a person of his grade of culture, and the perception which it implied has been often noticed in abnormal movements of the cerebral system. The simulation of such a trait implies more knowledge of disease, and a nicer art than can be fairly attributed to the prisoner. Indeed there was no need of simulation, at that moment, certainly. He had only to get down quietly into the room of his hosts, and either rob them or inflict the fatal wound while they were yet sleeping, and hurry away before being recognized.

It cannot be, as he declared at the trial, that he was “unconscious” of what he was doing, using the term in its ordinary signification, because after the homicide he told the police precisely what he had done. He probably meant to say what multitudes of the insane have said before, under similar circumstances, that he did not know why he should have done such a thing. He may have heard others use the word “unconscious” in speaking of his mental condition, and naturally supposed that to be the proper word for him to use in order to describe this unusual state of mind. Of course, such a person must not be held to a very correct application of metaphysical terms.

There can scarcely be a reasonable doubt that Cangley committed the bloody act in a short and sudden paroxysm of mania, and under an impulse that he could neither understand nor restrain. Of course, he was entitled to an acquittal, while society was equally entitled to such a disposal of his person as would have prevented any repetition of the murderous act. The occurrence of the homicide shortly after going to bed, and, probably, going to sleep, would naturally raise a suspicion that Cangley was in a state of somnolentia, or sleep-drunkenness, as the Germans call it, when the person suddenly awakes while dreaming of being assaulted or threatened in some frightful manner, some minutes elapsing before he fully comes to himself. In this state of mental confusion and alarm, he mistakes the first person who comes within reach for his imaginary foe, and attacks him with whatever weapon comes to hand. It is possible that Cangley’s was a case of this kind, but the evidence, lamentably meagre as it is, would hardly warrant this conclusion. He did not pretend that he had been dream-

ing, though, if such had been the case, it is inconceivable that he should have omitted to speak of it when describing his state of mind, unless we suppose—and this is not at all unlikely—that such an explanation seemed to him less credible to others than that which he actually gave. His acquaintances might have thrown some light on the matter, but it is one of the many curious features of this case that not one of his family or old friends appeared on the witness-stand.

Here this account of a rare and interesting case might properly end, but it gives rise to some reflections that deserve to be very thoughtfully considered. It appears that no expert was called to testify respecting the prisoner's mental condition, or to enlighten the court and jury respecting the nature of transitory mania; he was not recommended to mercy, nor was any attempt made to obtain a farther observation of his case. How striking the contrast, in this respect, presented by the Townley case! He was examined by a distinguished expert, before the trial, who testified that he was insane. Next a board of magistrates, assisted by medical men, examined him and pronounced him insane. Then a committee of the Board of Commissioners in Lunacy, appointed by the government, examined him and pronounced him insane; and finally, another committee of experts was appointed by the government for the same purpose, by whom he was declared to be sane. The result of which proceedings was that execution was stayed until the question of his insanity was effectually settled by his killing himself under remarkable circumstances. The difference between these two cases was, that one had friends able and willing to obtain for him every possible privilege, while the other had none. Had Cang-

ley been subjected to the same sort of inquisition that Townley was, who can suppose that his fate would not have been averted? Inequality like this is discreditable to any system of criminal procedure, for the acquittal of the innocent is a no less essential end of justice than the conviction of the guilty. The law says that when insanity is pleaded in defence of crime, it must be proved, but it ignores the fact that the party, if really insane, is necessarily incompetent to prove it, and, if poor and friendless, is unable to procure the assistance of others to the fullest extent. Are we not warranted by the united voices of humanity and science in claiming, as a right, not as a favor to be purchased by wealth or influence, that when reasonable doubts are raised respecting the sanity of the prisoner in a criminal suit, the law shall provide for a satisfactory inquisition into his mental condition?

Medical men have been much reproached for the facility with which they allow themselves to support the plea of insanity in defence of crime. For their efforts in this line of duty, they have sometimes been exposed to a degree of public odium not calculated to enhance their peace or prosperity. We are quite willing, for one, to bear this reproach, provided it be considered in connection with that practice of the law which was exemplified in Cangley's case. If those are reprehensible views which, one time in a hundred, promote the acquittal of a guilty man, how shall we characterize a system which no less often, at least, procures the conviction of one really irresponsible for his acts? Are we to be charged with arrogance and disrespect, because we speak in fitting terms of those who thus ignore the teachings of science, and sit in judgment on their fellow men, guided only by

some poor metaphysical conceits that have nothing to recommend them but their age? When we are told, for instance, that delusion is not a valid defence for a criminal act, unless the act is amply warranted by the circumstances, supposing the notion that prompted it to have been really true, instead of a delusion, are we to speak softly and blandly about such a rule of law, and refrain from saying with all possible plainness of speech, that it conflicts with the elementary truths of insanity on which only such rules should be founded? It seems to be but a spurious kind of comity that would oblige us to withhold our censure, even in the face of the whole bench of English judges.

The case of Cangle adds another to the long list on record, which have disgraced the administration of the criminal law in the British dominions. This is strong language, certainly, but what can deserve it more than that spirit which systematically repels the light of science and allows an issue of life or death to be determined by a metaphysical dogma. This is not a matter of choice—a matter about which people may reasonably differ. Some things there are that cannot be rejected or ignored. One of the results of the more careful and extensive study of insanity in these latter days is, the discovery that, in the state of mind which is characterized by delusion, the patient may have lost all power of distinguishing right from wrong, even to the utter destruction of all moral responsibility. Another is the discovery of a mental condition in which the understanding and will are completely dissevered, and the patient is borne on to the commission of some bloody deed by an irresistible impulse. These are not speculations or conjectures, but well-observed, well-authenticated facts; and

not to recognize them as such in any attempt to fix the limits of legal responsibility, is no more a mark of wisdom than it would be to teach chemistry now as it was in the days of Priestly, or to try old women for witchcraft in the spirit and understanding of Sir Matthew Hale. Medical jurisprudence can be of any worth only so far as it faithfully represents the acknowledged truths of science. What greater disgrace, then, can attach to a court of justice than that of deciding a question of guilt or innocence upon principles which have been falsified by the progress of knowledge?

NINETEENTH ANNUAL MEETING

OF THE

ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN
INSTITUTIONS FOR THE INSANE.

The Nineteenth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, was held at the Monongahela House, Pittsburgh, Pa., beginning on Tuesday morning, the 13th inst., at 10 o'clock.

Dr. KIRKBRIDE, President of the Association, was in the Chair, and Dr. CURWEN was Secretary.

The following members of the Association were present :

THOMAS S. KIRKBRIDE, Pennsylvania Hospital for the Insane, Philadelphia.

W. S. CHIPLEY, Eastern Lunatic Asylum, Kentucky.

R. HILLS, West Virginia Hospital for the Insane, Weston.

JOHN E. TYLER, McLean Asylum for the Insane, Somerville, Mass.

JAMES RODMAN, Western Lunatic Asylum of Kentucky, Hopkinsville, Ky.

GEO. C. S. CHOATE, Taunton Lunatic Hospital, Taunton, Mass.

CLEMENT A. WALKER, Boston Lunatic Hospital, South Boston, Mass.

WILLIAM H. STOKES, Mount Hope Institution, Baltimore.

WM. L. PECK, Central Ohio Lunatic Asylum, Columbus, Ohio.

JAMES R. DEWOLF, Provincial Hospital for the Insane, Halifax, N. S.

JOHN FONERDEN, Maryland Hospital for the Insane.

RICHARD GUNDRY, Southern Ohio Lunatic Asylum, Dayton, Ohio.

WM. P. JONES, Tennessee Hospital for the Insane, near Nashville, Tenn.

J. A. REED, Western Pennsylvania Hospital for Insane, Dixmont.

JOHN CURWEN, Pennsylvania State Lunatic Hospital, Harrisburg.

JOHN S. BUTLER, Retreat for the Insane, Hartford, Conn.

ANDREW MCFARLAND, Illinois Hospital for the Insane, Jacksonville.

JAMES DOUGLAS, Insane Asylum, Quebec.

Dr. H. R. Storer, from the American Medical Association, presented his letter accrediting him as delegate from that body, which was received.

Dr. Storer was warmly welcomed by the President, and he, (Dr. S.,) responded in a brief speech in which he dwelt upon the importance of the American Medical Association.

Dr. Geo. C. S. Choate, of Taunton, Mass., followed the announcement of the death of Dr. Ranney, late Superintendent of the Asylum for the Insane, on Blackwell's Island, New York, with a short address, in the course of which he set forth the manly and professional qualities of Dr. R., and showed how eminently fitted he was for the important position which he had occupied. He moved that the Chair appoint some person to draw up a series of resolutions declaratory of the feelings of the Association on the death of Dr. Ranney, and to prepare a notice on the same subject.

Dr. W. S. Chipley, of Lexington, Kentucky, moved to amend by inserting after resolutions, "and a person to prepare a biographical sketch."

The amendment was accepted by Dr. Choate, and the motion was adopted.

Dr. John E. Tyler, of Somerville, Mass., being in the chair, appointed the following committee on resolutions :

Dr. Choate, Dr. Stokes, and Dr. Hill ; and Dr. Brown, of Bloomingdale Asylum, N. Y., to prepare a biographical sketch.

Dr. Kirkbride resumed the chair.

Dr. Tyler read an interesting paper, written by Dr. Ray, being a review of the testimony in a case of murder, in which the prisoner had been tried, convicted and executed, at Belfast, Ireland, in March, 1864.

Dr. Tyler said, the fact that men who are acquitted on the ground of insanity and set at large in the course

of two or three months, was something which the community never could understand.

Dr. Choate said the insanity inferred by Dr. Ray in his paper, seemed to be of a negative kind. He thought it dangerous to accept any theory which would lead them to admit that a person never known to have been insane should commit crime under sudden impulse. Testimony of such a character would reflect discredit upon the profession. If persons were acquitted on the ground of their being afflicted with *homicidal mania*, for instance, then they were proper subjects for the hospital. If the deed is committed while the person is insane, they should be sent to the hospital in the first place. He had in the institution with which he was connected several homicides who were discharged. If a person had committed a deed of this kind, homicide, under irresistible impulse, he did not think such a person would ever be safe again.

Dr. Fonerden said he thought it probable that in a case such as that reviewed by Dr. Ray, insanity might have originated in the practice of masturbation. He instanced a case of two brothers who, riding along a road, were met by a stranger, with whom they entered into friendly conversation. The stranger, although unknown to either of them, appeared to be in perfect health and in a sane condition. Nevertheless, without having the slightest motive, the stranger threw one of the brothers from his horse, and would have killed him but for the interference of the brother. On examination it was found that the assailant was never known to the man whom he assailed, never was known to have been insane before, yet when his attention was gained on the subject of his assault, he grew pale and swooned. He was tried,

and acquitted on the plea of insanity. In the hospital it was discovered that for years he had been a masturbator. He spoke moderately, but always looked like a helpless man. One day while I was talking to him in the most friendly manner, he seized a chair, and but for my getting out of his way quickly, the consequences might have been disastrous.

Dr. DeWolf remarked that in Halifax, in all such cases, the patients are sent to the hospital, subject to the decision of the Executive, and the Superintendents have no control over them in so far as ordering their discharge is concerned. He thought much practical good might result from a harmonizing of understanding between the legal and medical professions.

Dr. Curwen said that the law of Pennsylvania provided for the lodgment of all such persons in the penitentiary.

Dr. Walker agreed with Dr. Tyler in thinking that the case reviewed by Dr. Ray was not clearly proven to have been one of insanity. The testimony was too meagre to warrant an opinion in favor of insanity. Some years ago, a prisoner who had presented his petition to the chaplain of the prison, while the chaplain was reading it he bent down for a moment, when the prisoner taking advantage of the circumstance, assailed him and murdered him. The murderer was hanged. Subsequently another prisoner killed an officer of the prison, under like circumstances, and afterwards wrote a letter to the wife of his victim, advising her as to the manner of bringing up her children. There was a case of a man in the Boston Lunatic Asylum, suspected of masturbation. One day at dinner table he lifted a pitcher, and reached over and struck an old man on the head with it.

He was unconscious of doing any injury, saying that he had only placed the pitcher on the man's head. The speaker thought that the ends of justice would be served by following such cases out fully. In regard to the criminal insane, they should be admitted to the benefits of hospitals. Those who have been criminals before insanity, should also be admitted to the same benefits, in an hospital or part of an hospital by themselves.

Dr. Gundry related the case of a carpenter about the institution with which he was connected. In passing him one night, the speaker found himself lying at his feet. In the midst of a quiet demeanor that man appeared determined to take life. One evening while this man was sitting at table in his usual quiet way, the warden put down his knife on the table and went to attend to some other patient further along the table, when the man in question seized the knife and stabbed a person sitting near him, yet no one could have seen in him any indication of homicidal impulse. The case of Charles Lamb's sister was alluded to. The man referred to had no motive, no grudge at any one, and no sorrow for what he did. Since the occurrence named, he had passed rapidly into general dementia. The cases of Cangle and Townley, cited by Dr. Ray, he deemed of a very different character. The former was an ignorant, uneducated person, while the latter had been led to insanity by the intuition of false principles. He gave the case of Patrick Maudsley, who was executed in New Jersey, as a proper one for professional investigation; that was a case in which the prisoner had been sacrificed for want of the benefit of a proper examination of the prisoner's mental condition.

Dr. Hills, of West Virginia, thought it would fre-

quently occur that such cases must be treated on a psychological basis. He related the case of a man who had tried to commit fratricide, and after being returned to his home attempted to commit a rape on his own sister. He was imprisoned, returned home only to become a paricide, and yet nobody dreamed of his being insane. For twelve years he continued to sink, and was at last, near the close of his case, sent to the hospital, where he ended in general paresis and dementia. No doubt but the case was one of insanity from the beginning. Such cases of obscure insanity should not be passed over. The doctor referred to a case in his hospital, that of a person who tried to kill another, apparently without motive. This man said he felt that he was defending himself against the assaults of a big black dog. The fact was, he had difficulty about his property, a matter which troubled him very much; he got inattentive to his business, and, of course, his embarrassments increased. These were the only indications until sudden impulse seized him. Under proper treatment, he was now recruiting, and would in a few months fully recover. Dr. Hills had no doubt whatever of this being a case of temporary insanity.

Dr. Rodman, of Kentucky, said that in every case of homicide, all circumstances and antecedents should be carefully investigated; that society had its rights as well as individuals, and that the former should be as carefully guarded against criminal violence as the latter from the extreme penalties visited upon acts committed under an impulse of disease. That this was particularly necessary in the present state of feeling in the border States where he lived; crimes might be attributed to insane impulses which had originated in a state of political feel-

ing which had existed for years perhaps. Medical witnesses should therefore be extremely cautious in attributing acts of violence to insane impulses, except being fully convinced after the most careful investigation of each individual case.

Dr. Chipley said, if he was told to examine a case of insanity he did not have any reference to any former case, but on the merits of the one before him. He must make his diagnosis on the facts present, regardless of the heat and inconsistency of public excitement. He cited the case of a man, an excellent workman, who had killed a man in the house where he boarded, on sudden impulse. It was stated that he had acted under a delusion. On his trial he was acquitted, and is now perfectly insane. Dr. C. could not, from the meagre testimony in the case presented by Dr. Ray, judge the prisoner to have been insane. He would urge the point that each individual case should be examined on its own merits. This was important inasmuch as experts were not recognized, but prisoners were invariably put at the mercy of medical men without any experience in the treatment of insanity in any of its phases.

Dr. Tyler said that Dr. Ray had in his paper acknowledged the meagreness of the testimony in the case presented, and stated that the prisoner should have had the benefit of a more full investigation, but there was sufficient in the testimony to create a doubt as to the sanity of the criminal. The facts should have been got at. We were left, in a large measure, to form our opinions from what prisoners say themselves. Of course, it is difficult to believe them, but their examination on a psychological basis should never be neglected. The truth of the case will be developed in due time.

Dr. Kirkbride said that within the last year cases had occurred which he regarded as making medical examinations by inexperienced persons, a farce. In a procession one man kills another, without the shadow of a motive; he is tried and acquitted on the plea of insanity, sent to the hospital, and in three months discharged. Such a case was a farce. He thought that such a man never should have his liberty, for it was better that one man should suffer than that the safety of the whole community should be sacrificed.

Dr. Chipley said that in his State, Kentucky, the judges commit prisoners to the hospital, or discharge them; otherwise so far as he, Dr. C., was concerned, he would not let a man go unless under the operation of *habeas corpus*.

Dr. Walker asked if a murder was committed under the influence of disease—homicidal impulse—and the murderer was discovered to be apparently cured, why should he not have his liberty?

Dr. Kirkbride said that the presumption was that the patient was incurable.

Dr. Walker related the case of a woman who had been attended by Dr. Steadman, who, while helping her sister to wash the dishes, seized a hammer and administered a blow upon her child, which was prattling on the floor. Her sister looked round as the second blow came down. The child died. This woman now had quite a rational conception of the guilt of her act. When taken to prison she tried to commit suicide. Although now perfectly rational, her friends would not see her except when he, (Dr. Walker,) was present; nor would her husband submit for a moment to have her returned to her home. Her explanation of the killing of her child was

this, "I thought the wall opened and I saw my child lying out in the cold, and crying for bread."

The following resolutions were adopted :

Resolved, That we recognize Dr. Kellogg as a representative of the Utica Asylum at the present meeting of this body.

Resolved, That Dr. H. R. Storer, a delegate from the American Medical Association, be invited to attend the present meetings and festivities of this body.

AFTERNOON SESSION.

Dr. Chipley read an interesting paper on "Feigned Insanity, Motives and Special Tests."

Dr. Tyler followed with an able paper, giving a demonstration of what Insanity is.

Dr. McFarland, of Illinois, said that the subject of criminals simulating insanity had occupied his attention a great deal. He stated the case of a girl who had killed her half-brother. No one had thought of examining her condition, yet she had been decided to be insane. Her hereditary indications should have been investigated; also the manner of and motive to the crime. The atrocity of the crime was a peculiar indication at times. He thought that Superintendents of asylums so far from being intimidated by charges made against them for presuming to know more than practitioners without experience, should take a firmer stand for the right.

Dr. Walker said his experience had been with criminals mostly, and after examining a large number of cases carefully and closely, he had come to the conclusion that no rule could be laid down for the detection of feigned or simulated insanity. He thought the proper method to pursue with such persons was to place them away from every other patient, subjecting them to moderate diet—having a contest with homicidal cases, of endurance.

He had found that when their endurance was exhausted they would come forward and confess the secret of their simulation most fully. He related an instance, that of a girl whom he had subjected to a long and tedious process of inflictions, whom he had eventually succeeded in bringing to confession. The girl was only seventeen years of age. At first she assumed an aspect which led him to view her as an idiotic person. She was admitted to the hospital, where he soon came to the conclusion that she was simulating insanity. As soon as he came to this conclusion, he begged her to admit her trick and to be relieved from very severe treatment. The inconsistency in her conduct was in mixing up acute mania with acute dementia. On one occasion, in the morning he went to her room and found blood emitted from her nose in two streaks down her breast, presenting a most ghastly appearance. On another occasion he found her with marks of blood on both ears, as if it had been flowing from them. He subjected her to solitary confinement, when she tore her bed into shreds. He then provided her with straw only for a bed, when she tore her clothing into the most minute rags, and when he went to her cell she was perfectly nude. She carefully turned the front of her person towards the wall, however, except when in the presence of the matron. At last, one morning about 2 o'clock he was called to attend her, when he found her very sick with dysentery. He took his microscope and examined the blood which she had passed in her sickness, went to her again, and told her he thought she had played her last card, as he knew nothing was wrong with her but the sickness consequent upon hunger. Next morning she confessed her deception. She was only seventeen years of age, and had en-

dured the severe test of twenty-five days. He thought that the letters of insane persons should be treasured as valuable evidences in which indications would be found which they succeeded in concealing otherwise. He narrated the case of a woman in South Boston, who would abuse her husband in bed in the most outrageous manner, using the most obscene and filthy language. Yet this was a lady who observed the proprieties of life with great care. When brought to him, she said the story was all untrue, and spoke in such a manner as to make him doubt the statement of her case, but a letter from her solved the problem. This woman finding herself caught, charged that she had been insulted by both her husband and her daughter, and named these things as extenuating circumstances in her case, justifying her assaulting her daughter in the street, and addressing her in the most outrageous language. Under ordinary circumstances her deportment was of the most proper character, and she was known as an accomplished and respectable lady.

Dr. DeWolf concurred with the opinions expressed in both papers. He thought that all cases of feigned insanity should be sent to hospital, and placed under the most scrutinizing observation. He objected to severe tests, as he thought they might provoke insanity if it should really have any existence, thereby making the patient worse.

Dr. J. S. Butler, of Hartford, Conn., stated the case of a young lady who had been sent to his institution, who was said to be insane. She was watched closely for two months, during which time she had not given the remotest sign of insanity. He also told of a man who had committed a murder. He found his pulse at 120,

but after gaining his confidence in a lengthened conversation, his pulse became natural. He was brought to trial, and on the testimony of some inexperienced medical practitioners, on the ground of his pulse beating 120, he was acquitted on the plea of insanity. All such cases proved the necessity of a demand being made for proper time for observation, ample time to enable proper persons to give intelligent testimony, when called upon for their opinions. He hoped the Association would take some steps with a view to bringing this about.

Dr. Rodman, of Kentucky, related the case of a man of forty years of age, who believed that his children stood between the affections of him and his wife, for which he shot four of them. He was told that if he was crazy he might get off. He feigned insanity by walking to and fro in his cell, and allowing the saliva to trickle down his chin; yet there was not the slightest trace of insanity in his manner. On trial a circumstancer was named for the purpose of establishing his plea of insanity, to the effect that at some time previous, while another person was praying, he supposing that he had been the person called upon to lead, prayed loudly and persistently. He was sent to the hospital, but the closest observation of his case failed to elicit the slightest trace of insanity.

Dr. Gundry spoke of a patient sent to his hospital, who was deemed insane beyond all doubt. It was during the draft. His case was said to be a relapse, one of that class which usually finds admission to the hospital with more facility than an original case. By careful observation, he found after a while, this patient betraying inconsistency, and discovered that he was merely feigning insanity in order to avoid the draft. Of course the

discovery was no sooner made than the proper authorities were informed, and the man removed to a position where he had an opportunity of serving the country. The Doctor said that we should never throw away our chances of observation, even in cases which may be feigned. He thought that some remedies should be applied at any rate which would at least be excellent tests. Abroad there were motives for feigning insanity of which he had no experience in this country, that was where the persons were governed by the law of primogeniture.

Dr. McFarland asked if it was possible to conceive of a case of this kind in the absence of some form of insanity? A man named Whittier seized one of his children, dashed its brains out, and after a while was released. In six years more he killed another child in the same manner. He was then sent to the asylum, and although he did not at first betray decided symptoms of insanity, yet he gradually sank into that condition, and died insane.

Dr. Hills had an exception to the general experience of the members who had spoken, in a case of acute mania, in which the patient destroyed her clothing, was exceedingly abusive and profane. She wrote a letter in which not the slightest trace of insanity could be found.

Dr. Curwen made a statement, relating the manner in which small pox had entered his institution, and the steps he had taken to get rid of it. This statement was followed by an informal conversation on the subject.

Dr. Kirkbride, from the Committee on Heating and Ventilation, read a report reiterating the propositions on this subject originally adopted by the Association, at its meeting in Philadelphia, and the correctness of which

they believed to be fully confirmed by subsequent experience, by their recognition as authority of nearly every commission engaged in the provision of additional accommodations for the insane in America, and by the general favor with which they have been received in other countries. The Committee referred especially to the 20th and 21st of these propositions,* as containing nearly all that can now be adopted, with entire unanimity by the members of the Association, and on that account they deemed it inexpedient at this time to propose a new series of propositions, as believed to have been intended by the mover of the resolution under which they were appointed. The Committee also referred to their conviction of the great value of the fan, as the most efficient means of providing ventilation, and their opinion that its use should be as regular during the night as in the day time.

The new use of cast iron as employed in the Harrison boiler for generating steam, and as a material for radiating surface when the pressure is not more than 15 lbs. to the square inch, was also referred to, as being eminently worthy of investigation by those engaged in providing apparatus for warming large buildings.

Dr. Choate said that at his institution they had put in a new range, which was connected with a tubular boiler,

* XX. All hospitals should be warmed by passing an abundance of pure fresh air from the external atmosphere, over pipes or plates, containing steam under low pressure, or hot water, the temperature of which at the boiler does not exceed 312° F., and placed in the basement or cellar of the building to be heated.

XXI. A complete system of forced ventilation, in connection with heating, is indispensable to give purity to the air of a hospital for the insane; and no expense that is required to effect this object can be deemed either misplaced or injudicious.

by which they generated steam enough for heating, and boiling water sufficient for all purposes for which it might be needed. The boiler stood at one end of the range, the fire passing through its tubes before passing into the chimney. It gave 50 lbs. of steam, and cost \$3,000. It was exceedingly expensive for repairs.

Dr. James Douglas, of Quebec, said that in his institution there was a large stack, into which the heat from the different floors was drawn. The draught was very great. He had double walls in his new asylum, in which were tubes communicating with a flue in the garret going into another stack. He thought the cost of heating in this country was very great. In Quebec they had 566 patients, and 70 attendants, and during the year they consumed 300 tons of coal and 300 cords of wood. They had 300 cubic feet space to each individual patient.

Dr. Chipley said that his hospital was not allowed to have more than 250 patients, including chronic cases, which were on the increase. Coal, for the last few years, had cost \$6,000, instead of \$3,000, as formerly. They had 248 patients where they have room only for 222, while 100 applications were now pending.

Dr. Douglas said that the sexes were to be separated in Quebec, the males to occupy the new and the females the old building.

Dr. Tyler agreed with the report of the Committee presented by Dr. Kirkbride. Our bedrooms should be ventilated so as to be as pure as if the air out of doors was circulating freely in them. They had no fan at the McLean Hospital, a want which they remedied by giving large space to a small number of patients. The air flues are all made large and smooth. The ventilation is downward, and is communicated with every apartment.

The draft made by the shaft in the centre of the building is very good. They could graduate the temperature in every room, each room having a separate air chamber, according to the requirements of patients.

In answer to a question, proposed by Dr. Choate, Dr. Kirkbride observed that the Harrison boiler was economical in regard to fuel, the space occupied, and its safety from explosion. It was in sections, and could be put up in various shapes. It was largely in use in this country and in England. It had been tested up to 500 lbs.

Dr. DeWolf, of Halifax, said that the institution of which he had charge was constructed so that in the winter they had double sashes. Their hot air flues were all on the upper edge of the air chamber. Their supply of water is unlimited, in consequence of which the water closets need no special ventilation, the water being kept continually in action. There was also a stack such as had been spoken of by other members; it was 120 feet high.

Dr. Butler said he used downward ventilation, the flues throughout the building leading into the cellar, where there was a shaft, in the centre of which there was a smoke-pipe, the heat from which generated the draft. The shaft was three feet in diameter, and the smoke-pipe one foot in diameter.

Dr. Peck stated that at his institution they consumed about 30,000 bushels of coal during the year. In the winter their heat and ventilation was very satisfactory.

Dr. Hills said that in the asylum of which he formerly had the charge in Ohio, that which Dr. Peck now represented, they had a stack 110 feet high, which contained an interior tube 40 inches in diameter. It was built with brick; was 12 feet in diameter at the base and 10

feet at the top. There was communication between this stack and all the rooms and apartments of the building. There must be a connection of the soil pipes with the stack. By the use of the fan there is a forcing of air into the building—a compression of the atmosphere. He thought the thermal or attenuating method preferable. He did not know which was the best. The waste pipes of their water closets went into a pipe 10 inches in diameter, leading to a sewer. Another pipe of the same diameter rises from an opening in the horizontal pipe, which communicates with the stack, and the action of the heat from the inner tube draws all odors down the pipes. This worked so thoroughly that it was impossible to discover an odor in any water closet in the house.

Dr. Rodman said that at his institution they had at the rate of 75 feet of surface to heat 1 foot of radiating heat. He advocated the use of the fan, taking the ground that its importance was undoubted. They had a stack 85 feet high.

Dr. Douglas thought it of some importance to look after the condition of the woodwork in close proximity to the steam pipes, as he said the fact of steampipes, even when covered with canvas, being near woodwork was exceedingly dangerous. He thought the minimum distance between the steam pipe and the wood should be one inch. He had examined the surroundings of a pipe and found not only the canvas covering completely charred, but also the woodwork, which, although it did not touch, had been converted into charcoal, and needed only a little higher temperature of the steam to result in spontaneous combustion. Some structures of importance he had known to have been destroyed by fire, and the investigation into the causes had proved that the flames

were the result of spontaneous combustion on the part of the woodwork near a steam pipe. Steam at 15 lbs., kept up regularly, would be sufficient to produce such a dangerous result.

Dr. Rodman said that this last statement of Dr. Douglas was one of surpassing importance to many of the members of the Association, and he hoped they would all use due diligence in properly examining their houses and watching the effects which had been referred to.

SECOND DAY.

In the forenoon the Association, under the direction of Dr. Reed, visited several of the most important manufacturing establishments in and about Pittsburgh. In the afternoon they proceeded on a visit to Dixmont Hospital, of which Dr. Reed is Superintendent, where, at 6 o'clock, another session took place in the office of the Institution, Dr. Kirkbride, President, in the chair.

Dr. Kellogg, of the New York State Asylum, at Utica, read a paper on "Moral Imbecility, or Perversity, as exhibited by a class of patients found in Lunatic Asylums."

Dr. Walker had encountered a number of the cases such as had been described in the paper of Dr. Kellogg. He thought that there were few of them that were not intellectually as well as morally insane. They could not be sent to prisons or penitentiaries; they must be sent to asylums. They were exceedingly troublesome, and had less sympathy than any other class of cases.

Dr. Douglas said that he had had considerable experience with cases of the class referred to, and he had always found them very troublesome. He had never doubted that they were decided cases of insanity.

Dr. Chipley entertained no doubt of the insanity of

such cases. He had one case of the kind of which, although he had no doubt of her insanity, she was in the house for six months before the development of her malady.

Dr. DeWolf did not have such a case, but application had been made for him to receive one. She was the daughter of a clergyman, who was guilty of the greatest annoyances to the family, and especially to her father. She was sent among strangers, and in the course of time improved, and he understood recovered.

Dr. Fonerden said he had a case, that of a girl, who was a great disturber and gossipier. She was a masturbator. She was, in her ordinary deportment, a very devout girl, and is so still, only she mixes her remarks with remorse. She frequently asserted that she had been guilty of every sin except that of sexual intercourse.

Dr. Rodman desired to know whether such cases resulted from masturbation.

Dr. Choate had seen a number of such cases, and he agreed with Dr. Walker that they were proper cases for the asylum. They were almost sure to fall into dementia. They could not improve, while they were a great annoyance to other patients. He thought it a disease as well as a vice. He could not look upon them as cases of insanity. He was of the opinion that many of them originated with masturbation. They nearly all ended in dementia. He thought there should be some fixed line of demarcation at which vice ended and insanity began, and in his estimation, the measure should be based on our perception of intellectual disturbance.

Dr. Tyler remembered a large number of cases of this kind, which ought perhaps to have been grouped differ-

ently. There was a certain class of children who were always bad up till the time of puberty, but at that period they became confirmed in vice. They seem to be morally imbecile. They know or appear to know what is right and what is wrong, but do not feel it or care for it. There is one phase of this disease always distinguished from other cases by the extreme plausibility of adaptation. They adapt themselves to any class of society, and are ready to take advantage of any variety of circumstances. He had known of a class of women, not given to the grosser vices, but who keep perpetually doing all sorts of mischief, stealing, lying and abusing. He knew of a case, for instance, of a woman who would visit the house of a neighbor, appropriate a vase or some other ornament from the mantelpiece, then visit the people next door and make a present of the stolen article. Such patients are very affectionate, and seem to have no fleshly desire, but they love to get control over their neighbors, so that only one will, (and that theirs), can exist. A third patient remarked waggishly to him one day of two other patients, one of them of the class referred to in Dr. Kellogg's paper, who had obtained entire control over the other, "Doctor, if you give one of them a pill it will operate on both of them." He had seen their moral propensities to mischief very strong notwithstanding their apparent devotion at times. There were times in such cases when moral perversity was fully evidenced, but at no time had he observed what he could term organic intellectual perversity. I have never known such a case ending in insanity. One thing remarkable in this class of cases was that such women generally have more accomplishments than others. One thing had struck him in connection with this subject, and that was that this

class of cases might come under kleptomania—a want of motive—a powerlessness of the will against the propensity to do evil.

Dr. Jones had a case similar to one that had been cited, except in regard to age and accomplishments. The woman was not of a very nervous development. She occasionally imagines that she sees lightening playing before her, and sometimes balls rolling round her. These were the only indications that he had observed of mental alienation.

Dr. Stokes had a case, that of a masturbator. She was, while under his care, a fit subject for the asylum. She was remarkably troublesome. She had been set down as morally insane, but he thought it was clearly a case of moral imbecility.

Dr. Hills said he recognized the kind of cases referred to. He had found such patients unwilling to leave the institution. He thought he had discovered why this is the case. Outside, no person had thought of so employing such patients as to engage their attention, and so to keep them content. He had a case, that of a woman, 21 or 22 years of age. He had discovered that he could control her in almost everything by threatening to send her home. He had found her exactly as Dr. Tyler had described. He had made her useful, making her serve as if an employé of the institution. Whenever she relapses into bad behavior, he resorted to the old method of threatening to send her home. He thought that she saw her usefulness. He thought the method he had adopted in such cases had been better than anything severe. The reason why they are treated better at the asylum than at home was because the discipline at home was more severe and less adapted to the requirements of

the case. Whether the treatment he pursued would effect a perfect cure or not he did not know. He never knew a case of recovery. The particular case to which he had referred was an interesting one. The woman had an idea that she never would get better. She was a Swiss, but spoke the English language very fluently. She was possessed of many accomplishments, and was very beautiful.

Dr. Kirkbride said he thought kind treatment in such cases was invariably successful, and any other treatment would surely prove to be a failure.

Dr. Choate asked if it did not commonly happen that such cases, when in circumstances of poverty, go to the House of Refuge?

Dr. Kirkbride said he thought so, and they did so much mischief as almost to provoke their being sent to the House of Refuge. He had known cases where they would succeed in setting the attendants of a ward against each other by lying representations.

Dr. Walker asked the President if his experience did not bear out the fact that all such cases were masturbators?

Dr. Kirkbride said he had not come to that conclusion.

Dr. Walker observed that mischievous as such patients were, they were worthy of attention and study. From the very nature of their malady and their conduct, they had no pity from any one, and none to befriend them except the doctors.

There was a general assent to this statement.

Dr. Jones asked the President if the majority of such cases were not females?

Dr. Kirkbride thought so. Men were sent either to the House of Refuge or to prison.

Dr. Tyler wished to remark that in a number of cases the fathers had been drunkards.

Dr. Kirkbride said Dr. Tyler will also remember cases in which the parents were of the most exemplary character.

Dr. Tyler said he did.

Dr. Chipley read a paper on "The Application of Anesthetics in the Treatment of Insanity."

Dr. Douglas confessed to a prejudice against their use.

Dr. Peck had used them to some extent in cases of insanity, but was satisfied that no permanent benefit was derived from the practice. If he used them, it would be in the shape of chloroform. The cases in which he had used it were not of high excitement. The patient was put to sleep, but no permanent benefit followed.

Dr. Rodman never used anesthetics as a curative. He had applied them in cases of epileptic convulsions.

Dr. McFarland had made up his mind not to use them. He had applied ether on one occasion to feed a patient.

Dr. DeWolf had used chloroform once to get the patient's mouth open, and in another case for the purpose of enabling him to perform a surgical operation. He thought the only cases of accident in the use of chloroform had been in the hands of dentists, and such accidents he thought had occurred on account of the patient sitting upright.

Dr. Fonerden had used anesthetics several times, but could never be satisfied that any real benefit had resulted from the application.

Dr. Choate had used it frequently for several years,

and had suspended its use only when he had none to apply. In one or two cases of violent mania, he thought the use of anesthetics had saved the lives of his patients by putting an end to paroxysms. In one case in which he had used them, the patient had constantly recurring paroxysms which were stopped, and the patient got some sleep and was freed from prostration. The form in which he used it was that of chloric ether. He had never seen any evil result from it.

Dr. Tyler said he used ether very freely. He supposed his experience was the same as that of other gentlemen. He used it occasionally as a bridge to get over a difficulty, and to avert violent agitation on the part of the patient. He did not think sleep in such cases was refreshing. He had known patients to recover from the sleep induced by the application of ether, and to have refreshing natural slumber.

Dr. Jones had used it in a few cases, although not generally.

Dr. Hills had given chloroform considerably for the purpose of subduing cases of violent insanity. He found it often brought about benefits from other agents which would have been useless and inoperative without it; as, for instance, in the administering of an opiate, if the patient was disturbed its effect was destroyed, but if chloroform be brought to bear, then the anodyne was effective. He had used a great deal of it, and he thought it could be used with safety.

Dr. Walker had used it for a number of years in cases such as had been named, but principally for the purpose of securing sleep. He had given it to the same patient two or three times a night for weeks, and after the application of the ether the reports are uniformly—three

or four hours' sleep. He would not be without ether under any circumstances whatever.

Dr. Chipley said he was very much gratified with the statements which his short paper had called forth.

Dr. Kirkbride had never used anesthetics, because he regarded them dangerous, and thought that but little benefit was to be derived from their application. That was also the experience of half a dozen of his friends. He had known of some cases in which the use of sulphuric ether by dentists had produced insanity.

Dr. Walker said he could cite cases of persons who had used sulphuric ether for the purpose of having eight, ten or twenty teeth extracted; and in six or eight such cases he had been assured by the friends of the parties that this had been the cause of their insanity.

Dr. DeWolf had a case of a person who had become insane from having six teeth extracted.

Dr. Tyler knew of some cases of the same kind, although this would seldom occur when ether was not used.

Dr. Walker knew a lady who came to him to have her teeth extracted. He refused. He consented to take out two, and did so. Shortly afterwards she went to the dentist and had all her teeth taken out. She returned saying, "I have had one job made of it." She began to sink in health and spirits, and would undoubtedly have become insane but for a change of scene.

Dr. Tyler mentioned the case of a woman who had a mouthful of decayed teeth, and she was rescued from insanity by having them pulled. Also, the case of a young man in a state of mania, who in a lucid interval had his teeth pulled and in a week was well. Still another case, of a woman who had decayed teeth; ether

was administered to her, and she had thirteen teeth drawn. She was very much afraid, but got better.

Dr. Hills stated a case of acute mania, which came under his observation in the Western Ohio Asylum, in which the pulling of teeth most decidedly relieved the patient. He knew of a number of cases within the last four years, in which the pulling of decayed teeth had resulted favorably. He knew of from one to two dozen cases of females being afflicted with acute insanity caused by decayed teeth.

At 9 o'clock the Directors of the Institution and a host of its warm friends joined the party. Among those present we observed Joseph Pennock, Esq., Thomas Bakewell, Esq., the Hon. Wm. F. Johnston, John Harper, Esq., James McCandless, Esq., W. S. Haven, Esq., J. T. Kincaid, Esq., Wm. A. Herron, Esq., W. P. Shinn, Esq., John A. Harper, Esq., and a host of other well known citizens.

The Chapel was tastefully decorated with evergreens and flowers. The order of the evening was social intercourse and music. A table in the form of a Greek cross occupied a central position, and was loaded down with the bounties of Providence set forth in the most inviting shapes. The centre-piece was a magnificent floral Temple of Liberty. At another point was a sugar model of Dixmont Hospital, which attracted considerable attention. Other grand designs from the hands of an able caterer occupied positions on the table.

Dr. Reed introduced Ex-Governor Johnston to the audience, who delivered one of his characteristically eloquent speeches, warmly welcoming the Association to Dixmont and the hospitalities of the Superintendent.

Dr. Kirkbride, President of the Association, responded

in an able address, in the course of which he took occasion to compliment the taste and good judgment which were indicated in the structure and the arrangements, which the Association had inspected in the most thorough manner.

From two pianos on the platform, Mr. Bakowitz, Mr. Manning, and several accomplished ladies, made delightful music. Mr. Edwin Sherratt and a competent choir of ladies and gentlemen gave several charming choruses, including the "Prisoner's Hope," and the "Star Spangled Banner." After some pleasant social intercourse, the party took the cars for the city. By the courtesy of W. P. Shinn, Esq., Superintendent of the Fort Wayne and Chicago Railway, the friends were conveyed to and from the Hospital.

The ladies and gentlemen, and particularly the members of the Superintendent's Association, will long cherish in their memory the pleasant afternoon and happy evening spent with Dr. Reed and his accomplished lady at Dixmont Hospital.

THURSDAY'S SESSIONS.

In the forenoon, the first business brought forward was the law relative to the legal rights of the insane, which had been referred to members of the Association for consultation with their friends versed in law, to report at the present meeting. A desultory conversation took place on the subject, but nothing definite was elicited, whereupon

Dr. Choate offered the following resolutions, which were adopted :

Resolved, That each member of this Association be earnestly requested to thoroughly consider the subject of the legal relations of the insane, and of a general law for the insane in all the States; to

procure such legal counsel in the matter as may be possible for each, and to bring a written statement of his views to the next meeting of the Association, such consideration to be based upon the project of the law now before the Association.

Resolved, That this subject be assigned as the special business of the next meeting of the Association, and that each member be notified to this effect by the Secretary.

Dr. McFarland asked if any member of the Association had observed an epidemic refusal on the part of patients to accept food?

Dr. Walker had one case in which the pump was used.

Dr. Gundry induced such patients to eat by changing the sexes in attendance. In the case of a male patient his wife invariably succeeded in getting him to eat, and he found success in female cases of the same kind.

Dr. Walker asked how often the pump should be used?

Dr. Kirkbride thought about once in twenty-four hours.

Dr. Choate thought that the pump should be used at least twice in twenty-four hours, as he deemed the interval between meals once in twenty-four hours to be too exhaustive.

Dr. Peck had used the pump only in one case, and that was in injecting whiskey.

Dr. Choate, from the committee on resolutions relative to the memory of Dr. Ranney, reported the following:

Whereas, It has pleased an all-wise Providence to remove from us Dr. Moses H. Ranney, late Physician and Superintendent of the New York City Lunatic Asylum, and for many years a member of this Association, therefore

Resolved, That the intelligence of his death, in the prime of life, and at the height of his usefulness, has filled our hearts with profound sorrow.

Resolved, That in his devotion to his professional duties, to which

he finally sacrificed his life, and in his unwavering attention to the unfortunate class under his care, we recognize a character worthy of our universal emulation.

Resolved, That we lament his too sad decease as a loss to each of us of a warm hearted friend and brother, to our Association of an able and valued member, and to the institution which he so long and faithfully served of a wise and benignant head.

Resolved, That a copy of these resolutions be printed with the doings of the Association, and be transmitted by the Secretary to the family of our deceased friend.

Dr. Walker, from the committee on selection of place of next annual meeting, reported in favor of Washington, D. C., on the last Tuesday in April, 1866.

Dr. DeWolf gave a warm invitation to the Association to hold its next meeting at Halifax, N. S. He said if the Association could not accept the invitation, he would be glad to receive them in groups at any time during the year.

Dr. Jones said he had hoped that the Association would have held its next meeting near Nashville, Tennessee, but he bowed to the recommendation of the committee, because he supposed they had considered the subject carefully, and had decided for the best, still he would cherish the hope that Nashville would come in for the next turn.

The report of the committee was adopted.

At this point an informal conversation took place on the question of sending a delegate to the American Medical Association. No delegate was appointed.

Dr. Curwen wanted to hear the experience of members in the treatment of epilepsy in cases of insanity. As for himself, he had been in the habit of administering bromide of potassium, belladonna, and aconite, in small doses.

Dr. Kellogg said he had been in the habit of giving bromide of potassium, which he found had the effect to diminish both the frequency and the severity of the fits.

Dr. Peck said he had used the bromide of potassium in cases of masturbation, administering from five to fifteen grains, according to circumstances.

Dr. Gundry said he had followed very much the same treatment as that last named, although he had tried various other remedies which had been productive of good effects.

Dr. Reed said he had several cases of epilepsy, in which he had, like Dr. Gundry, tried various remedies with good effects.

Dr. McFarland stated the case of a young woman who had epileptic fits, preceded by throwing up of the contents of the stomach. In this case he ordered her an emetic of ipecac and sulphate of zinc, effecting a cure.

Dr. Tyler said that early in his practice he had many cases of epilepsy, for which he had tried everything, but had been led to regulation of the diet as the best method, especially in cases of epileptics not insane. He enjoined a regular time to get up in the morning, a regular time of going to school, a regular time for meals, a regular time of going to bed, in fact, a regular time for everything. The diet which he had recommended was boiled milk, Hecker's farina, and bread, except rye or Indian brown bread. Under this treatment he had been very successful. He had administered fifteen grains, and as high as thirty grains of bromide of potassium, but he found the dieting particularly successful. This would be found beneficial also in cases of apoplectic melancholy.

Dr. Butler had used stramonium and regular diet, which had reduced the frequency and severity of the fits. He

had given a child small doses of oxide of zinc, and administered rigid adherence to diet, in epilepsy, and the patient got well. In grown up cases he had faith in the use of stramonium.

Dr. Curwen, the Secretary, read the following communication which he had received from Dr. Brown of the Bloomingdale Asylum :

BLOOMINGDALE ASYLUM FOR THE INSANE, }
NEW YORK, June 13, 1865. }

JOHN CURWEN, M. D., Secretary, &c.

MY DEAR DOCTOR: Being unable, much to my regret, to attend the present meeting of the Association, I am impelled by motives which will readily suggest themselves to all our Association to bring before them for consideration a matter which has interested me not a little. In the *English Journal of Mental Science* for July, 1863, page 303, occurs a notice of Dr. Ray's discourse of the life and character of the late Dr. Luther V. Bell, a former President of our Association.

This notice is marked by a spirit and by expressions wholly at variance with the system of ethics which scientific journals everywhere are expected to observe, and which editors are specially bound to defend. I quote the offensive phrases that the Association may judge for themselves of their nature. They are as follows :

"The civil war now raging in America interrupted the quiet evening of his days; and Dr. Luther Bell, infirm in health, and with anxious domestic cares, was yet *moved by the demon of war* to go forth and aid President Lincoln's insane and hopeless attempt to force on the Southern Confederacy the mob rule of the North, by aid of foreign hirelings and ex-Attorney Generals." And again, after quoting from Dr. Bell's letters, "Fancy any sane man writing such wickedness. In the shades of the spirit land Dr. Bell has long since learned to judge wiser and gentler judgments."

The passages occur in a volume "published by authority of the Association of Medical Officers of Asylums and Hospitals for the Insane" in Great Britain and Ireland, and edited by one of its members. I ask whether it exhibits a proper spirit of comity toward this Association thus to asperse the character of one of its most honored

Presidents, whose private and public fame are untarnished by a single stain? I do not complain of the writer's indulgence in political dicta and prophecies, except to say that a journal of medical science was not the proper place to ventilate them. His offence was against the memory, which I venture to say is revered as much by Southern as by Northern members of our Association, because of Dr. Bell's exalted character as a man, his unsurpassed distinction in his professional career, and for his usefulness to the institution he adorned so long.

Having withdrawn from asylum life and duties, it accorded with his well known philanthropic impulses to accompany those of his neighbors who went forth to scenes of peculiar danger, that he might aid them by his professional counsel and skill. Northern and Southern physicians have equally approved this course in the other during the late unhappy war, as is abundantly proven by the courtesy and good understanding which has prevailed among the medical officers of both armies.

The tenor and specific language of the notice in the *Asylum Journal* have been publicly commented on and objected to in the AMERICAN JOURNAL OF INSANITY by Dr. Ray and the present writer, but no retraction nor *amende* has yet appeared in the English journal. I have therefore deemed the matter worthy the attention of our Association, since the names of several of its members appear in the published list of honorary members of the British Association, and they are thus involved in an indignity which is virtually endorsed by that Association through the action of their editor.

I therefore propose for the consideration of the meeting the following resolutions:

Resolved, That the editorial notice of Dr. Ray's Memoir of the late Luther V. Bell, M. D., as published in the *British Journal of Mental Science* for July, 1863, is regarded by this Association as containing an unjust aspersion on the character of its former honored President, and as such is unworthy of the Association of which the *Journal* is the official organ.

Resolved, That in anticipation of the annual meeting of the British Association, to be held in London during July, the Secretary of this Association address copies of these resolutions to the President and Secretary of our sister society, in the hope that it may reject all responsibility for and publicly disapprove an act which is as offensive

to this body as an impeachment of their own venerable Conolly would be to our fellow laborers in a common field of philanthropy.

Desiring for the members present an agreeable and profitable meeting, I am with sincere respect. Very truly yours,

D. T. BROWN.

Dr. Tyler said he had no doubt that every member of the Association, upon reading the article just referred to, not only was deeply grieved, but more—boiled with indignation. So unjust, so gratuitous, so cruelly malignant an article had rarely, he hoped, been seen in any journal making pretensions to respectability. It was early noticed by several gentlemen, but no retraction had been made. We could not, at this late day, be said to be acting hastily or hotly in this matter, and he should heartily give his vote for the resolutions. He thought it the proper mode of procedure, and if the British Association of Superintendents disclaim and regret the article, as he had no doubt they would, it would then cease to have any other importance than that of the slang of a scurrilous newspaper.

Dr. Kellogg remembered that the subject had been properly noticed in the JOURNAL OF INSANITY at the time. He believed the spirit of the article had been pretty generally deprecated, but the journal in which the article appeared had not seen fit to retract. He hoped the resolutions would be adopted by a unanimous vote.

Dr. Douglas said he had read the article in question, and thought it very much out of place and uncalled for, and betrayed a spirit which such a journal as that in which it appeared should have been the very last to betray.

Dr. DeWolf repudiated the article *in toto*. The utter impropriety of the language used, and the unprovoked

nature of the assault led him to deeply regret its appearance. He hoped the resolutions would be adopted, and that the friends on the other side would do all their duty in the premises.

The resolutions were adopted by a unanimous vote.

Dr. Butler, introduced the subject of "The Condition of the Indigent and Incurable Insane," in a brief address, which gave rise to the most spirited debate of the session. He said that in former years special steps had been taken for the provision of curable cases, including, of course, some that were incurable. But at that time, when this Association first met, the present condition of incurable cases could not be foreseen. They had in Connecticut 500 cases which ought to be under hospital treatment. During the past year the incurables had pressed upon them, so that the question had arisen, "What shall we do with them?" The difficulty might be met in two ways. They might build another institution, one for curable cases, but in his State he believed it impossible to obtain the means to enable them to do that. Another question therefore presented itself: Can we provide any plan at a rational expenditure? The Legislature had entertained the question, and the present proposition was in favor of a farm for an incurable institution, where patients can be suitably cared for, and perform some labor which would partially meet the expense of their support. For the present, he expected to have a State farm, with all the other appliances necessary for the care of incurable patients. He believed there was not an institution in the land in which incurables did not embarrass the care of the curables.

Dr. Curwen could not agree with Dr. Butler as to the manner of providing for such cases. Of course, it must

be admitted that the state of the case presses upon the attention of the authorities the necessity of provision for incurables. They made provision for the idiotic, for the blind, and for the deaf and dumb, but none for the incurable insane. That some provision must be made he knew, but he did not care about entertaining the question. He did not believe in the idea of the insane being self-supporting.

Dr. Douglas said that in Canada, all cases, curable or incurable, were provided for by the government. All the insane supported by the government were not in hospitals. There were about 900 in and out of hospitals. About 600 were in, and 300 out. The number of women was greater than that of men.

Dr. DeWolf said that in his region the counties were responsible for the support of the insane, but the government of the Province makes up any deficiency.

Dr. McFarland regarded the introduction of the subject as of some importance. He thought there should be no letting down the high standard that the Association had taken. Incurables cost just as much as curables, and he doubted whether anything was to be gained by cheap institutions. Look, for instance, at Dr. Reed's excellent institution at Dixmont, at its fostering influence, its attraction for friends. What would it be without the very points which make it attractive? How many friends would visit it? Who would be proud of it? What good would a cheap institution accomplish? He regarded the idea of separation with doubt. Who would draw the line, and say what patient was curable or incurable? In regard to the economy of having a distinct institution, he must say that there would be, could be very little profit derived from the labor of such a class of patients.

Should we go back in the presence of all the progressive machinery and theories of the age? He hoped that any step which might be taken would be in advance, and not backward.

Dr. Tyler said he confessed to an aversion to drawing a line between the incurable and the curable insane. He could only regard the proposition of a hospital for incurable insane as an expedient. It was not the right thing, and anything short was unworthy of their efforts.

Dr. Peck said he was pained almost daily with having to reject patients who had to be kept in alms-houses and jails. Instead of lowering the standard of asylums, he hoped it would be raised.

Dr. Reed said the law of Pennsylvania does not say who shall and who shall not be admitted. Except in fresh cases—the newest cases—his Board refused to turn away incurable cases. The cost of support is about \$2 50 per week, which he did not regard as being very extravagant. The Board would not allow the standard to be lowered. He had known of cases set down as incurable, in which the patients had recovered.

Dr. Kellogg, in a brief, concise, and clear manner, stated what had been done in the State of New York since Dr. Willard's report was made.

Dr. Choate said that in the three institutions in Massachusetts there were 1050 patients. It was claimed that certain patients had recovered in the alms-house. With reasonable care he had no doubt they might.

Dr. Chipley was opposed to any classification that did not exist in any well regulated hospital. As for the economy of the proposition he could not see it. He could not reduce the standard of clothing, food or care. Then as to cases which he had known to have been deemed

incurable for years, he had known them also to have recovered. Establishments with "head keepers" and "under keepers" belonged to the past, and he hoped never to see them revived. Why not connect farms with all institutions? In connection with his there were 230 acres, and the labor was done by patients, as a recreation, not as a task by which they had to pay for the expense of their support. The profit from labor by inmates of an asylum was not a question that should be entertained. The next question to be raised will be, "What is the least possible expense of clothing, food, attendants, and so on?" Since the war commenced Kentucky has appropriated \$85,000 for the completion of a new hospital, notwithstanding the provisions she had to make for everything else, and that hospital has been built, although the foundation had to be dug in the face of guerrillas who surrounded the neighborhood.

Dr. Hills said he differed from most of the members of the Association. In Ohio they had increased their asylums to four, but there was an increase of the insane. Not more than one half of the insane are cared for in these institutions; the rest were in the work-houses and jails, and in the hands of friends, their cases being inadequately provided for. He knew the standard would not be maintained by the people, and never could be done. The people never can be brought up to it. The Association, then, must meet the subject. The policy of rejecting a curable case when an incurable one can be removed was wrong. The remarks made by other gentlemen on the subject had confirmed him in his belief.

Dr. Walker very briefly expressed his aversion to cheap institutions. He did not understand how the interests of the insane could be cared for in any other way

than by the utmost attention and vigilance by such attendance as was qualified with a proper appreciation of the duty of caring for those who could not care for themselves.

Dr. Gundry said that this idea of separating the insane into two classes might be very well in the hands of political economists who could not comprehend anything beyond amounts in dollars and cents, but they, as professional men, must view the subject on its own merits, and on the basis of the first of all propositions, that the insane must be helped—cared for. Ohio prefers to attend to the curable cases, and the chronic ones take their chance. Were they to withdraw incurables when their influence was so valuable in aiding the cases of the curable? If they did, they made the chances of the curable cases worse. To do this is to deteriorate the usefulness of an institution. Let us do the best we can with what we can until we can do better. He thought separation would be injurious to the interests of the insane generally.

Dr. Hills said he would rather take charge of an institution of curables without incurables and take the chances of making a reputation.

Dr. Gundry said that some benevolent persons might be found to do such things, but that made no difference in the argument. They must keep right until the people did come up to the standard.

Dr. Kirkbride did not think it economical ever to do wrong. He thought the separation idea was a wrong one. By pursuing such a course the standard was lowered, and the respect of the community was reduced in relation to the proper treatment of the insane.

The discussion was brought to a close by Dr. Butler moving the following resolution :

Resolved, That a committee of three be appointed to take into consideration the condition of the chronic and supposed incurable insane, and the best possible arrangement for their custody and treatment, and to report at the next meeting of the Association.

The resolution was adopted, and the President appointed the following gentlemen a committee :

Dr. Butler, Dr. Walker and Dr. Curwen.

Dr. Gundry had been in the habit of treating cases of recurring mania with small doses of from fifteen to forty drops of the tincture of digitalis. One case, that of a woman, who had been thus treated, was very plain. When her medicine was omitted she would relapse into her vicious manner, and that at periods when she was likely to be most excited. He had used the same prescription in cases of acute mania, but he adopted its application especially for cases of recurring mania.

Dr. Fonerden, of the committee on resolutions relative to the visit of the Association to Pittsburgh, reported the following resolutions :

1. *Resolved*, That the members of the Association have experienced great satisfaction in a visit of examination of the Western Pennsylvania Hospital for the Insane, at Dixmont; and that they have found it to be a most creditable addition to the extensive and scientific accommodations for the insane, elsewhere in the State. The spot on which it stands has been well chosen for healthfulness and for the beauty of the prospects in its surroundings. The institution has been skilfully provided with the useful appliances which the latest experience and matured judgment of specialists in this department of medicine have declared to be essential for the benefit of disordered minds; and there is evidently manifest in the joint proceedings of the Board of Trustees and the Medical Superintendent, Dr. Reed, a determination to introduce whatever future advantages the science of the age may invent.

2. *Resolved*, That to the President and Trustees of this Hospital, and to our brother, Dr. Reed, we present our cordial thanks for their agreeable courtesies to us during the sitting of our Association, now closing; for no pains have been spared by them to interest us in the famed city of Pittsburgh and its environs, in the intervals between our sessions for transacting business.

3. *Resolved*, That the members of the Association are unanimous in the expression of their enjoyment of the hospitalities at Dixmont, on the afternoon and evening of the 14th of June, 1865; upon which occasion they were welcomed at a delightful festival, in remarks made by ex-Governor Johnston, and were afterwards introduced to many ladies and gentlemen of the vicinity, who had assembled at the invitation of the Chief of the Institution and his lady.

4. *Resolved*, That we are under special obligations to Messrs. Joseph Pennock, Thomas Bakewell, John Harper, and James McCandless for their assiduous efforts in pointing out and explaining the numerous objects of interest in Pittsburgh and its vicinity.

5. *Resolved*, That the thanks of this Association are due, and are hereby tendered to J. H. Shoenberger, Esq., for the opportunity so courteously offered the members, for visiting his gallery of elegant paintings; to the firm of Messrs. J. H. Shoenberger & Co., for permission to examine their extensive iron works; to the proprietors of the Fort Pitt Foundry, for the privilege of inspecting the extensive operations conducted by them; to Messrs. Jones, Boyd & Co., for their courteous attention in exhibiting and explaining the arrangements of their steel works; to the President and Superintendent of the Pittsburgh, Fort Wayne and Chicago Railroad, for the liberal arrangements made by them to enable the Association to visit Dixmont; to Messrs. Bakewell, Pears & Co., Messrs. Graff, Byers & Co., Messrs. Chambers & Co., and Messrs. McKee & Brothers, for the permission to examine their extensive glass works; to Dr. H. Campbell, for his courtesy and kindness to the members during their visit to the Western Penitentiary; and also to Rev. Mr. Passavant, for an invitation to visit the Infirmary, and to Messrs. James B. Lyon & Co., to Messrs. Pennock & Co., to Messrs. Fahnestock, Albree & Co., and Messrs. B. L. Fahnestock & Co., to Joseph Thompson, Esq., Superintendent of the Pittsburgh Gas Works, to the proprietors of the Eagle Cotton Works, to the Managers of the House of Refuge, to William Henderson, Esq., of the Pittsburgh Theatre, for invitations

to visit the respective establishments under their charge, but which the limited time at the command of the members did not permit them to accept.

6. *Resolved*, That our thanks are due, and hereby returned, to McDonald Crossan, proprietor of the Monongahela House, for his unwearied attention to the comfort of the members and for the excellent arrangements made by him for holding their meetings.

The resolutions were adopted unanimously.

A motion to adjourn was adopted.

The President then declared the Association adjourned, to meet in the city of Washington, D. C., on the last Tuesday in April, 1866.

MEMORANDA ON ANESTHETICS.*

BY DR. W. S. CHIPLEY.

The July number of the JOURNAL OF INSANITY, 1847, contains an editorial notice of the administration of "the vapor of ether to sixteen different patients at the New York State Lunatic Asylum." This was perhaps among the earliest trials of anesthetics in the treatment of insanity. It was given "to none highly excited or maniacal." Some were not affected, others appeared to be temporarily benefited, and still others were inspired with new delusions.

These experiments seem to have had no other effect than to authorize more extended observation. If the purpose of the author was prosecuted, he has not given us the results. My impression is that no very satisfac-

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at the Annual Meeting, held at Pittsburgh, Pa., June 13, 1865.

tory conclusions were reached, and hence the use of anesthetics in the treatment of insanity attracted but little attention until some years afterwards.

At the meeting of the Association in 1853, the subject of etherization was incidentally introduced by Dr. Ray. Only a few remarks were elicited.

At the annual meeting in Washington city, 1854, Dr. Ray read a paper on the "Effect of Etherization on the Nervous System in the Treatment of Mental Diseases." The discussion which followed showed that many of the members had then little or no experience with the subject matter of the paper before them, but several gentlemen expressed the determination to make a trial with anesthetics on their return home. It seems that, at that time, most of the members who had any experience with anesthetics resorted to sulphuric ether.

This subject was introduced again at Boston in 1855. Dr. Gray on this occasion read a paper on "The Use of Anesthetics in the New York State Lunatic Asylum."

Dr. Ray, in the discussion which followed, expressed a preference for sulphuric ether, because it is not open to the objection which lies against the others—that they had unquestionably proved fatal in many instances.

In 1858, Dr. Tyler read an interesting paper at the meeting in Quebec, on "The Use of Anesthetics in Quieting the Violent Insane," which elicited a most instructive discussion. It was apparent that there had been a large increase in the practice since the notice by Dr. Ray in 1854. In that discussion, Dr. Smith, of Missouri, stated that "there was no well authenticated case on record of death having resulted from the inhalation of sulphuric ether." This declaration was not questioned by any member of the Association. I thought

if the statement was correct, it presented an important guide in the selection of an anesthetic agent, and I determined to investigate this point as far as I might be able to do so in the files of the medical journals which have accumulated in my library since Dr. Wells introduced anesthetics to the knowledge of the profession. These journals are the *New York Medical Journal*, the *Medical Gazette*, and the *Scalpel*, New York; the *American Journal of Medical Science*, *North American Medico-Chirurgical Review*, and the *Medical and Surgical Reporter*, Philadelphia; the *Virginia Medical and Surgical Journal*, Richmond; the *Western Lancet*, Cincinnati; the *Louisville Medical and Surgical Journal*, and the *Transylvania Medical Journal*, Louisville, Ky., and the *New Orleans Medical and Surgical Journal*. It will be perceived that these journals cover a vast portion of the country, extending from New York to New Orleans, and if any fatal cases had occurred, it was but reasonable to expect to find some of them on record.

In 1854, the *Western Lancet* stated that "no example of sudden death has followed the inhalation of sulphuric ether." This declaration is repeated by other journals at various periods up to the present time.

In a careful examination of more than one hundred volumes of the journals named, I have not found a single fatal case recorded as having occurred in America from the inhalation of sulphuric ether, while a most melancholy array of deaths from chloroform was constantly intruding on my notice. Apparently stout, healthy persons, in the prime of life, have gone down to the grave by hundreds after a minute's inhalation of chloroform.

I did not look into my foreign journals, because I was seeking only to ascertain the results of American ex-

perience. I am aware that Prof. Simpson alleges that fatality has attended the inhalation of ether; and that Dr. Kidd, in reply to a circular of the "Boston Society for Medical Improvement," gives the particulars of thirty-six cases of death from the inhalation of the same anesthetic. I cannot account for this difference in the experience of Europe and America. It cannot be because ether is little used in this country. At one time it was resorted to exclusively, and some of the large hospitals, as the New York Hospital, have exhibited no other anesthetic for many years. Chloroform has been excluded from this institution for nearly twenty years, and it is exclusively used in Philadelphia by only one gentleman of eminence. Chloroform is so dangerous an agent that many efforts have been made to find an efficient substitute.

The vapor of amylenes was suggested by Dr. Snow. It was given in quite a number of cases in the London hospitals; and both Mr. Fergusson and Mr. Bowman operated on patients under its influence. Dr. Snow says: "In regard to its odor, it is more objectionable than chloroform, but much less so than sulphuric ether. In respect to its pungency, it has a great advantage over both ether and chloroform, being much less pungent than either of them." This article, however, failed to win the favor of the profession, and I do not know that it has been resorted to by any one in this country. Dr. Kidd reports two deaths from its use.

Nitric ether has been tried, and here, too, we have fatal results recorded. Chloric ether is denounced by Prof. Gilman as more fatal than chloroform. Chloride of olefiant gas, or Dutch oil, was exhibited by Nunnely. His patients declared it was more "effectual, pleasant,

and speedy" than either chloroform or ether, both of which they had previously inhaled. Prof. Simpson experimented with this agent, and expresses great dissatisfaction. He also tried the vapor of light coal tar naphtha, which he found as powerful as chloroform, but not as pleasant, and offering no advantage except its small cost.

Dr. Cotting, of Massachusetts, declares that "all volatile anesthetics yet tried, except ether, have been known to cause severe accidents, and even instant death."

It has been proposed to combine chloroform and sulphuric ether in the proportions of one of the former to two of the latter, and the compound was asserted to be almost as pleasant and effective as chloroform and as safe as ether alone. Dr. Crockett, of Virginia, however, reports a fatal case from the inhalation of one drachm from a sponge of a mixture of chloroform one part, of washed sulphuric ether four parts.

Other objections are urged against the use of the vapor of chloroform. Cases of permanent and serious impairment of the mind from a single exhibition of this article are reported. Six cases of insanity, which had continued from one to six years at the time of the report, are recorded in the *New York Medical Journal*.

Dr. Bell mentioned a case, (Association, 1853,) of insanity of a lady, resulting from inhalation of chloroform administered by a dentist. After remaining under Dr. B.'s care one year, she committed suicide.

At the same session, Dr. Kirkbride stated that he "had two cases under his care whose insanity was induced by etherization and chloroform." If one of these was caused by ether it stands alone on record.

We cannot consent to dispense with anesthetics. They

are said to have been resorted to in China near the beginning of the Christian era, and they have been and will ever continue to be, a coveted boon to suffering humanity. What, then, is the best and safest anesthetic agent known to us?

In view of the unnumbered dead, whom chloroform has sent to untimely graves, can we justify ourselves in persisting in the use of so deadly an agent when we have one, not quite so agreeable, but equally effective in most cases and in American experience perfectly safe?

What is the result of the last seven years' observation, since the subject was last discussed in the Association, as to the permanent benefit of anesthetics by inhalation in the treatment of insanity?

Are not anesthetics falling into disuse in the treatment of mental diseases?

ON THE PHYSIOLOGY OF THE BRAIN AND NERVOUS SYSTEM.*

BY DR. BROWN-SEQUARD.

This lecture, I am afraid, will have many faults. Laying aside the principal one, of which I do not mean to speak, it has to treat of so many topics, that the variety will itself be a great obstacle to the comprehension of many of the views which will be put forward. I shall, however, endeavor, while putting forward as many facts as possible, to condense them, to accommodate them one with another, and establish some tie, some union, between them, so that they may, as far as practicable, form the

* From the Dublin Medical Press.

connected and consistent whole. That whole will have for its principal object to show the immense importance—to the physiologist, of the study of morbid cases in the human species—and to the practitioner, of the study of physiology, and especially of that branch of physiology which is founded upon experiments on animals. Indeed, a complete revolution has been made in the practice of medicine in this century from the study of effects observed upon animals, and if, together with the light thereby thrown on morbid cases in our own species, we make an appeal not only to physiology—and experimental physiology particularly—but if we also try to throw the light of normal anatomy, and especially the anatomy of the nervous centres, and of the nerves at the base of the brain, we find that to understand the symptoms of a large class of pathological cases in our own species is almost as easy as to read the alphabet. Indeed, a great many of the most complicated, the most obscure, and the most unintelligible cases of nervous complaints are as easily understood as the simplest case of bronchitis or any slight inflammation, if we have the light which experimental physiology and the anatomy of the base of the brain now give us.

Suppose, for instance, a patient comes to us with paralysis—a perfectly and absolutely complete paralysis of one-half of the body, from the neck downwards. Suppose that, in addition to this paralysis of motion (say in the right half of the body), he has also on the same side extreme hyperæsthesia, or increase of sensibility in all those parts which are struck with paralysis of motion. Let us suppose that we find not only extreme sensibility to touch, which we may measure with the compasses, but also an extreme sensibility to tickling, which is a

sensibility quite distinct from the other. Suppose we find, besides all this, that the sensibility to a prick or a pinch—in fact, the sensibility to painful impressions—likewise the sensibility to changes of temperature, to cold and heat, is also immensely increased. Thus, you have these four kinds of sensibility, which, I repeat, are absolutely distinct one from the other, all considerably increased in that limb apparently dead, as it has not the least power of motion. Suppose besides, that in the same limb we find the temperature considerably increased, and that the circulation there is more energetic, not more rapid of course, because it is the same heart that propels the blood there as elsewhere, but fuller, there is decidedly more blood there than elsewhere in the body.

All these symptoms, mark, are observable on *one* side of the body—the right; if we now contrast them with what we observe in the limbs on the opposite side, they acquire still greater interest. If we examine the *left* side of the body, we find an absolutely reverse condition. We find that all those various species of sensations of which I have spoken are lost, completely and absolutely lost, upon the left side. We find there is also on the left side—in opposition to what exists on the right—a complete power of movement, not the least diminution of the power of the will. Suppose, going further, we examine into the condition of the fifth kind of sensibility existing in the limbs (admitting that there are only five species of sensibility), if we examine into the sensibility that exists in the muscles, which help us to direct our movements, we find the muscular sense remains perfect in those limbs which have lost the other kinds of sensibility. There is on the *left* side, therefore, a complete anæsthesia of the *first four* kinds of sensibility of

which I have spoken, combined with a *persistence of the muscular sense* and *persistence of voluntary motion*; while on the *right* side the condition is exactly the reverse. But what about the degree of heat in the limbs on the left side, and what about the circulation? On the left side there is not only a much *inferior* degree of heat than on the right side, but there is also an actual diminution of heat, if you compare those parts with what they were in their normal condition; in other words, there is an *absolute* diminution of heat on the left side,—not simply a relative diminution; so that while on the *right* side the temperature of the body has increased, on the *left* it has diminished, and similarly with regard to the circulation.

These features are striking enough, yet there are many others in the same individual upon which I cannot now dwell, but which are fully as interesting and equally difficult to understand by a man who is not *au courant* with the present state of physiological science.

In the *face* on the side of the injury (admitting that an injury is the cause of these symptoms), there is an increased heat, an increased sensibility, a contraction of the pupil, and a degree of occlusion of the eyelids, so that the two eyes, if you look at them at the same time while open, are quite different one from the other; the eye on the side of the hyperæsthesia and of the increased heat is smaller, and the opening of the eyelids smaller than on the other side.

All these facts we produce in animals very easily, and it has been my good fortune (in some respects) to find many such cases in our own species; one of the most striking of them was seen with me by my dear and talented friend Dr. Robert Macdonnell, in which the

symptoms upon which I have been dwelling were as marked as possible.

Now, what was the injury which produced all these remarkable effects? It was simply a division of the spinal cord, not simply of the half of that organ in the neck, but of the entire half—*i. e.*, the posterior column, the lateral column, the anterior column, and the grey matter of one side, had been divided completely. Owing to that injury all those symptoms existed.

Now, I put it to you, if any physician at the beginning of this century, not knowing the present state of our knowledge in physiology, no matter how learned and how able in other respects, had such a living problem been presented to him, he would most certainly have been at a loss to understand the case. Nay more, he would not *see* the case as I have described it; he would not recognize the existence of those symptoms; he would probably commit the error committed by the great French surgeon who had had such a case, but who never discovered that the sensibility was lost on the side still under the power of the will until the nurse told him of it.

From these facts you may see the importance of a thorough knowledge of physiology. The physiologist can have no difficulty in understanding such a case; for when he knows that the spinal cord is the organ conveying the orders of the will to the muscles, that the nervous fibres serving for voluntary movement pass from each side of the spinal cord, so that the fibres which serve for the movements of limbs on the *right* side pass to the *right* side of the cord, and those serving for movement of limbs on the *left* side pass to the *left* side of the cord, it is quite evident that such a division of the cord

as I have described will produce loss of motion on one side, and not on the other. On the other hand, the sensitive nerve fibres, which serve to the first four kinds of sensibilities I speak of, pass into the spinal cord in such a manner as to go to the *other side* of that organ, so that the nerve fibres of sensibility in my *right arm and right leg* pass into the *left side* of the spinal column, and *vice versa*, and thus a division of the cord produces loss of sensibility on the opposite side of the body to that of the injury.

Equally clear is the explanation as regards the increase of heat in the limbs on the side of the injury. The nerves of bloodvessels pass into the spinal cord on the side corresponding to that of the limbs into which they go, just as with the nerves of voluntary movement; so that a division of the spinal cord in or below the neck on the *right* side produces paralysis of the nerves of bloodvessels in the right side of the body, in consequence of which paralysis there is an increase of the impulses of the heart everywhere on that side, causing a greater efflux of blood and increased heat, and (as a consequence of the increased heat) in a measure also the increased sensibility of which I have spoken, the hyperæsthesia of the four kinds of sensation.

I cannot dwell further on this class of cases; enough has been said to show how much light physiology can throw on symptoms which certainly would have been most obscure (to say the least) to even the most eminent men of the beginning of this century, who did not know the physiological facts which have been since discovered.

I shall now produce another case.

Let us suppose a man has sustained an injury, not of the spinal column, but of the medulla oblongata above

the decussation of the anterior pyramids,—not such an injury as would destroy life at once, not such a tumor or morbid alteration as would prove immediately fatal; but suppose an injury of sufficient extent to produce decided symptoms, though not enough to cause immediate death.

Now in this case you would have all the features which I have described in the former case, but with this difference, that as the anterior pyramids decussate below the injury, an injury on the right side would strike the fibres of voluntary motion belonging to that side going up to make their decussation before they passed from the right side into the left side, and it would also strike after their decussation those fibres of voluntary movement that have come from the left side. Thus, therefore, there would be in this case paralysis of movement on *both* sides of the body. As regards the state of the circulation and heat, and as regards the hyperæsthesia and anæsthesia, everything would be similar in this case to the former.

Let us now suppose the injury is a little higher up, and we shall find other striking differences.

Suppose a patient comes to you with paralysis of the external rectus of the eye—suppose on the right side—the *face* is paralyzed on the same side; there is also anæsthesia of the *face* on the right side; but in the left side it is not the face but the *body* that is affected with paralysis, both of sensibility and motion.

Here, then, is a case absolutely distinct from both the others—a case in which there is loss of motion and loss of sensibility in the *face* on the right side, and in the *body* at the opposite side. I cannot dwell at length on the other features of the case, but I must not pass from

it without noticing a most striking feature. You will often find in similar cases that the tongue is perfectly free,—there is no loss of movement at all in that organ. You will find the facial paralysis is just the same kind of paralysis that exists when the facial nerve outside the cranium has been injured, *i. e.*, that the muscles which give expression to the face and also the orbit of the eye are paralyzed. This case, therefore, is quite distinct from cases of hemiplegia. As you are aware, in paralysis due to disease of the brain you will find the face paralyzed on the same side as that in which the body is paralyzed, the orbicularis is not paralyzed, while the tongue is almost always somewhat paralyzed. In the class of cases I am now submitting to your notice the distinction is characteristic and striking. The grimaces which the patient makes, owing to the paralysis of the face, take place on the side of the paralysis, instead of on the other side, because the paralyzed side of the face is the opposite to that which is usually paralyzed. Besides all this, you will find that the sense of *taste* is altered on the side on which the face is anæsthetic. You will find further that the patient is in a state of considerable emotion; he will shed tears easily, he will gape frequently, and while gaping there frequently will be a sudden jerk of the paralyzed limbs. There is also generally considerable giddiness and tendency to vomit. I mean now only to put forward the principal symptoms.

Now, I ask, what is the explanation of this case? Do you think the most eminent man at the beginning of this century, not knowing the science of physiology and anatomy as we now know it, could have understood this case? Certainly not. Therefore, as you may perceive,

physiology and anatomy are immense helps in the diagnosis of disease.

Now, the set of symptoms I have last described belong to a case of disease of the pons varolii, striking at the same time the roots of the trigeminal and of the facial nerves before they have made their decussation, which is at the lower part of the pons varolii, and striking also the sixth pair of nerves before it has made its decussation, producing paralysis on the side of the injury, just as much as if the cause existed in the nerve itself.

You must not, however, think that an alteration of the pons varolii will in all cases produce all these effects. If the alteration takes place a little higher up than the middle of the organ striking at the place where the facial nerve and trigeminal nerve cross, you will have these effects. The two sides of the face will be paralyzed, both in sensibility and motion; the two sides, as regards the action of the external recti of the eye, and also the sense of taste, will be paralyzed, while the paralysis in the body will be only on one side. It is quite sufficient, in order to understand this case, to keep in view what the nerves do when they reach the pons varolii. When the injury strikes the pons varolii *above* the decussation, you have, as regards the portions of the face and body which are paralyzed, the same effects as are observable in most cases of brain disease—that is, the paralysis of the face will be on the same side with the paralysis of the body; if, on the other hand, the injury strikes the pons varolii below the decussation, the contrary effects are perceived.

The question, however, remains, how can you know when the disease is in the pons varolii, if you lose that

peculiar symptom of the sides as regards paralysis of the face and body? In the first place, if the injury is one producing anæsthesia, you will find in the beginning of the affection, if the injury is in the pons varolii, a most important symptom—viz., a great and extreme coldness of that side of the body which is about to become paralyzed; in fact, just the reverse of what will occur when the paralysis is complete. I remember on one occasion my friend Dr. Bright (who, like almost all great men, is extremely modest) did me the great honor of asking my advice upon a case which had come before him at the College of Surgeons. The symptoms in that case were—besides the extreme coldness already mentioned in one-half of the body—tingling in the fingers, very slight ptosis of the external rectus, some jerks in the muscles of the face, on the opposite side to that of the injury—a symptom you do not find when the injury is higher than the pons varolii; also some sensations of tickling in the face—another symptom you do not find in cases where the disease is higher up than the pons; in fact, there were symptoms which, to one who was then more of a physiologist than a practitioner, as it is since that time I have seen more patients, were new in the human species; but I had no hesitation, simply from the teachings of physiology, in stating it was that kind of case which I have just pointed out; and so it proved, as it gradually and successively presented all the symptoms I have mentioned of disease in the base of the brain. Not having had the advantage of making an autopsy of the case, you may, perhaps, think me very presumptuous in holding that I had made a certain diagnosis while knowing nothing but the symptoms; but really with this class of cases doubt is impossible when the symptoms are

combined, forming a group so defined and distinct that there is an absolute certainty even during life as to the cause. It is not so when the disease goes higher up in the brain. We are then at a loss, and it is extremely difficult to say whether there is organic disease, or merely a temporary disorder of the circulation; but if the symptoms I have pointed out are, all of them, present, the case is absolutely free from doubt or uncertainty.

I pass on to another kind of hemiplegia. There is one kind of hemiplegia absolutely distinct from all these kinds. Suppose a patient comes to you with some slight stiffness and tendency to throw his limbs on one side; there is not a great paralysis, but rather a decided weakness, and hardly any loss of sensibility at one side of the body. He complains also of noises in the ear on the same side, of feeling extremely giddy, and having a tendency sometimes to revolve and turn round upon himself. He sometimes reels as if he were intoxicated; he very frequently cannot walk straight forward; sometimes he has also very great hyperæsthesia to sounds; he has also at times a sudden tendency to fall down; it seems to him that he cannot keep up, and that he must fall, also that if he takes hold of something he will keep up.

This kind of case is, indeed, the most instructive of all kinds of hemiplegia. I have now collected more than twenty-two such cases—not all seen by me, but a large proportion of them. According to the autopsy made in a number of these cases, they are simply cases of reflex paralysis; they are not paralysis owing to the destruction, the alteration, or the section, in fact, to the interruption of the conductors of voluntary motion. They are absolutely distinct from the paralysis which is

due to the fact that the conductor between the organ of the will and the muscle is interrupted—they are produced by quite another mechanism. In this class of paralysis there is disease, either of the lower part of the brain, at the base of which lies the fifth pair of nerves, or near the place of entrance of the auditory nerve. There is in this case not a destruction but a pressure (and not a very considerable pressure) on the cerebelli, a small part of the pons varolii, and the medulla oblongata. Place a tumour there, which has encroached slightly and gradually on the neighboring parts to those I have named, and these symptoms will appear.

But, let the injury go further, then the paralysis on one side of the body—viz., the paralysis on the side where the injury existed—will disappear; yet the injury to the base of the brain is greater now than it was in the former case; but from the moment that a real disorganization has taken place in the base of the brain the symptoms which existed at first disappear, and the paralysis passes from the right side where it existed at first to the left side, the tumour still continuing at the right side.

I regret I cannot, owing to the limited time at my command, explain the cause of this more at length, but I will endeavor to do so in a few words.

In the first case the same condition exists as where an injury exists on a nerve anywhere in the body, producing paralysis. Acting upon the brain it produces an alteration of some kind which the microscope does not detect, and by a reflex action produces paralysis. But why is it that in the second case we find the paralysis disappears at that side? The explanation is, that the part which in the first case was irritated has now been

destroyed, and hence there is no more irritation, and paralysis consequently ceases on that side, but it goes to the other side of the body; because in the pons varolii and medulla oblongata there are conductors of voluntary motion above their decussation passing to go up to the brain. Hence, if an injury exists, such as to destroy some of these conductors, paralysis will occur on the other side; and it disappears on the first side, owing to the fact that the part has been destroyed and there is no longer a pressure and irritation as at first.

I intended bringing forward a great many other types of hemiplegia to show what physiology can do to explain these cases; but I am compelled to be brief. I, however, must mention one other kind of hemiplegia—that due to hæmorrhage in the cerebellum. In this case there are features which have, most of them, been found in experiments on animals, and which, if rightly read, will lead to accurate diagnosis. One is, there will be vomiting—this is a constant symptom of hæmorrhage into the cerebellum. There will also be hyperæsthesia in some parts of the body—not the whole, nor even the half, but in some parts. There will also be amaurosis, not from pressure on the tuberculi quadrigemini, but due to reflex action, as the disease in most cases does not press upon the tuberculi quadrigemini. That this is so, appears still more certain if we take into account what occurs in many of these cases of amaurosis; we may have amaurosis of the left eye alone, of the right eye alone, or of both eyes; still more, we may have amaurosis passing from one eye to the other alternately, showing, in fact, that there is no persistency or uniformity of action in the production of amaurosis in these cases.

There is another kind of hemiplegia as to which I

must say a few words, it is that kind which is due to a lesion of the anterior lobes of the brain. Phrenologists, we know, have regarded the anterior lobes of the brain as organs of speech, but there are many cases—Dr. Stokes mentioned to me a very striking one a few days ago—in which a destruction of these lobes took place without any loss of speech. But the question (and it is an interesting one) arises, what creates the loss of speech when such loss exists? As regards that, I shall have in a moment or two to point out how great a variety of symptoms may be produced by a lesion of almost any part whatever of the brain. This loss of speech I hold to be a mere reflex phenomenon; and of this we have a proof in the fact, that it will vary very much, even in the same patient, according to circumstances which physiology has as yet been unable to detect, but certainly with the lesion still continuing. The facts at all events prove that destruction of the anterior nerve is not the direct cause of loss of speech—it is one of the instances of reflex phenomena. It is worthy of remark that the loss of speech is usually unaccompanied by any difficulty of movement in the tongue; there is perfect freedom of motion in the tongue, and the defect of speech arises from the patient being unable to express his thoughts not only by speech, but even by signs or writing; it is a paralysis of the “organ of expression of thoughts.” The patient may, notwithstanding, remain very intelligent. I some time since met a case—it was that of a clergyman—who was a remarkable instance of this. He had not absolutely lost his speech, for he pronounced words very distinctly, but they were words possessing no meaning whatever. He was likewise unable to write or even to express his thoughts by signs.

When asked, for example, to express "yes" by lifting one finger, and "no" by two fingers, he was unable to do it, although he appeared extremely intelligent.

I pass on to notice another group of facts, showing the importance of a knowledge of physiology in the diagnosis of disease. There is one form of disease to the discovery of which I have been led by experiments on animals, and which I must mention. Patients may come to you complaining of pain in the back, of a prickling sensation in both arms, with some degree of itching, burning, or some strange sensation of cold and heat alternately in the skin of both their limbs. You may find some strange forms of skin affection different from those which you have usually to deal with when they are not due to nervous disease. You may find also some degree of weakness in the two upper limbs, jerkings in these limbs, sometimes also a great stiffness in some of the vessels, and they are tender under pressure. If you do not pay attention to the state of the spine—if you do not know the exact physiological meaning of all these symptoms—you will perhaps be led to suppose that there is some local affection—rheumatism, if you like—of the arms. You, perhaps, will think it very strange that heat and cold can coëxist in the same organs. You are surprised you can find no description of such a disease in books. Yet the explanation is most simple: it depends altogether on an inflammation of the nerves at their exit from the spine in the lower part of the cervical region. There is in the spine sometimes local meningitis. The whole thing arises from irritation of motor and sensitive nerves, and especially irritation in the nerves of bloodvessels—this it is which produces all these symptoms. If, then, applying your physiological

knowledge, you arrive at the true character of the injury, you may, by a certain mode of treatment, which presents no great difficulty and causes no great pain, cure, or at all events greatly mitigate the disease. I have met many cases of the kind, and with the exception of one, which I saw in London in conjunction with Dr. Adams, and which terminated in death, all the cases have been either cured completely or more or less ameliorated. The treatment consists in the most active blistering of the spine in the region of the injury, also in the application of dry cupping all along the lines of blister. Injections of narcotics have also been resorted to, but the principal treatment consists of the application of blisters to the spine. Internally I have sometimes employed iodide of potassium, but what share it had in the cure I do not know.

I intended to bring forward other cases of reflex paralysis of the lower limbs and from inflammatory softening of the spinal cord, but time does not allow of it. I will simply say, that physiology has demonstrated these most important facts—that the spinal cord in its central part, which is decidedly insensible in its normal state, will become exquisitely sensitive under the influence of inflammation; and when sensitive, it will give rise to all those strange sensations complained of by patients attacked with myelitis or great congestion in the grey matter. When there is considerable congestion of the grey matter, or, still more, when there is inflammation, we have these symptoms, which are also the effects of irritation of the motor nerves—viz., jerks, tremblings, convulsions, contractions in the muscles, etc. All these symptoms are due to a special change in the condition of the spinal cord; they cannot be produced without

congestion or inflammation; they are essential to these two diseases, and if you do not find at least a part of them you may be convinced that the spinal column is free from congestion, and free still more from myelitis.

I proceed to notice two kinds of cases of fracture of the spine absolutely distinct one from the other, though the injury in both is in the neck.

Two patients are brought to you, having sustained a fracture in the cervical region. One of them is almost pulseless, extremely cold, covered with a clammy perspiration, his limbs lie loose and dead, there is no contraction, no rigidity, his breathing faint. If you bleed him, you will find the venous blood red like arterial blood, flows out, not with a great impulse, for the impulse of the heart is extremely weak and almost in a state of syncope; but still the blood does not flow in the same way as venous blood—it has an impulse.

Now, examine the other patient. Here the symptoms are directly contrary to the former. The limbs are stiff and rigid; the pulse extremely high; the heart's action excited; the heat of the body not only in the extremities higher than is usual, but absolutely higher than the temperature of the blood in health in man.

Now, what is the explanation of these two cases? It is found by experiments performed on animals. In the first of the two cases there is irritation—perhaps extremely slight, the slightest prick will be sufficient—on the spinal cord. The effect is, stoppage of the heart's action, so that it beats with less force and rapidity, and, as consequences of this condition of the heart, all the other symptoms above described ensue. In the other patient, on the contrary, the spinal cord has been cut across, and the patient is in a much worse state, in

reality, than the other; still he seems to be far more alive than the other. He seems to have the power of reâction which we wish to find in patients; yet the danger of his position is far greater—in fact, he is sure to die; while the other, by means of an operation, (which was performed to-day upon a patient in this city), may survive.

I proceed to make some remarks on the production of symptoms of brain disease. As you well know, our view of the production of symptoms of brain disease—disease in the brain proper—is, that a disease there produces paralysis by striking the organs of the will, and that there is a paralysis of the will, at least for that part of the body which is paralyzed—that, if other symptoms occur, such, for instance, as any form of insensibility, or any form of convulsions, the connection of the part is altered or perturbed in some way, and owing to that alteration, this or that form of insensibility or convulsions will occur. All the symptoms of brain disease, at least all of them that I know of, either alone or united one with another, or grouped just as you may fancy to group them, may be due to simple reflex action. I have not time now to demonstrate this, but I shall demonstrate, I hope fully, that they are *not* owing to loss of function or pressure upon neighboring parts.

You are all familiar with the great variety of symptoms presented in brain disease. Take, for instance, facial paralysis in cases of disease of the brain. Facial paralysis, as you know, does not exist in the orbicularis, but in the other muscles of the face. Now, if you say that in cases of disease of the anterior lobe of the brain (as is certainly the case) there is facial paralysis, because the nerve fibres of the facial nerve go to that

part—well, I am perfectly willing to admit it; but let us take a case of injury to some other part of the brain—take a case of injury in the posterior lobe, and here too we find facial paralysis. How will you explain this? Do the nerve fibres of the facial nerve go to the anterior lobe in one and to the posterior in another individual? Certainly not. The result of such a hypothesis would be, that there is absolutely no part of the brain which would not be the spot to which the nerve fibres of the facial nerve go. If you imagine such a thing possible, I wish you would reconcile the facts with what anatomy teaches. Anatomy teaches that the facial nerve goes to a certain part of the pons varolii, so that besides (excuse the word) the absurdity of supposing that the facial nerve extends to every part of the brain, and each part containing all those fibres—besides this absurdity, there is the anatomical impossibility which we see when we examine the condition of the facial nerve. It is absolutely impossible, in fact, that such a hypothesis can be correct. Again, take another instance; the tongue, as you well know, is more or less paralyzed in most of these cases of disease in the cerebellum: there is some difficulty in drawing it out in a straight line, also some slight impediment in the speech owing to the paralysis of some of the fibres of the ninth pair of nerves. How can you reconcile the existence of that paralysis in most cases with the fact that we do not see the fibres of the ninth pair of nerves—the hypoglossal—going up higher than the medulla oblongata? Here is a patient whose pons varolii is completely injured—mark that the pons varolii must be the place of passage—if there is any such passage—of the fibres of the hypoglossal pair going up to the brain. If, therefore, one-half of the pons varolii

is congested by disease there must be a paralysis of the tongue, yet there is no paralysis of the tongue in that case, so that both anatomy and this physiological fact prove that the hypoglossal nerves do not go to the back of the brain. How, then, is it that disease in *any* part of the brain may (as we know it does by experience) produce paralysis of the hypoglossal pair? I leave it to you to decide. To me it seems quite clear that to hold that when an injury to a part of the cerebellum causes paralysis of the ninth, or any other nerve, it is because the paralyzed nerve goes to that part of the brain, is decidedly wrong, and that there is no way of explaining the phenomena without admitting that irritation starting from any part whatever of the body may cause paralysis of any other part, *e. g.*, that irritation of any part of the bowels might produce paralysis of the tongue. If you examine a number of cases of disease of the brain, especially of the active form, such as cases of tumors producing irritation, and especially tumors in the membranes of the brain, you will find that, for a tumor in one and the same part of the brain, there is no symptom produced in some cases, while in others you will find any symptom whatever. I do not think you could put your finger on any form of nervous complaint that you will not find to exist in some one or other of the cases of injury in any part of the lobe of the brain. Still more, with the same persistent disease you may have during the course of the life of the patient, whether he is to recover or die, you may have a great change. The patient may be paralyzed to-day, another day he may not; you may, in fact, have every variety of phenomena, or no phenomena at all,—all arising from one and the same cause, and in the same individual, so that unless you

suppose that each individual part of the brain possesses every function whatever, and has the effect of reacting on every part of the body in a direct way,—unless you prove that each part of the brain is connected with the fibres of the whole body, you cannot understand these facts; and mark, in some cases of injury to the cerebellum, there are no phenomena at all, so that while, on the one hand, you must suppose that there is no part of the brain which does not contain all the nerves of the body, you are, on the other hand, forced to conclude, that there is no part of any nerve of the body going to the cerebellum. Such a hypothesis is obviously impossible. You are aware that the explanation I have ventured to offer of these phenomena is that they come under the class of those produced by reflex action. I shall present a few other instances of a similar kind; and first, a few words as to syncope, as induced by a blow on the stomach, which is nothing but syncope by reflex action. In these cases experiments have shown that the syncope is produced by reflex action through the abdominal sympathetic ganglion acting through the par vagum, medulla oblongata, and spinal cord. I have often and often tried the experiment by crushing the ganglion of the sympathetic in the abdomen. In such cases there was sometimes a sudden arrest of the heart's action, in other cases only a temporary diminution in the beating of the heart, in other cases, again, there was hardly any effect produced. Again, in those animals in which I observed the effect to be produced, I waited till recovery was established, and I then divided the ganglion and crushed the par vagum; no effect was then produced on the heart's action, clearly showing that the transmission take place through the par vagum.

In those cases in which the heart is stopped, whether from the cause above assigned or any other,—I mean cases of syncope, I do not mean death, when of course the stoppage of the heart's action is a definite one,—but those conditions which are on the verge of death, and which lead to death if nothing is done to relieve it,—in those conditions there very frequently are means of restoring life. I have ascertained in animals very frequently that though the heart is then quite stopped, we can, by simply pressing on the sternum, and by giving a hard push to the heart, make it beat. It will not beat long if the cause of the syncope is a powerful one; but beat it will, and if you continue the cause of irritation it will continue to beat, and in that way you may often revive the patient. But this is not all. If you add to that cause of revival another which is most powerful, and which is directly the reverse of what John Hunter did upon himself when he found he was in a state of syncope one day at college,—if, instead of breathing as quickly as you can, you stop the patient's breathing altogether, just as if you were trying to kill him by suffocation, you revive him, by producing a state of asphyxia, the patient is saved, he will have a struggle, and will come out of it very quickly. Nothing, indeed, is more powerful to make the heart beat than an accumulation of carbonic acid in the blood. Whether I have been right or wrong in maintaining the principle, that the normal and abnormal beatings of the heart when very tumultuous depend chiefly upon an accumulation of carbonic acid in the blood,—whether I am right in this respect or not, there is no question that if you produce partial suffocation in these cases, you make the heart beat again, and beat with force. I should add that I

have not the merit of having discovered this fact, as I find that in an old book, published some two hundred or three hundred years ago, an English surgeon has mentioned this fact as very important. He, however, does not say on what he grounded his view. There are some other features about syncope of great importance. If there is little blood circulating you may in a moment throw something like one or even two pounds of blood into the heart by simply pressing on the four main arteries of the body. If you press those four arteries you prevent circulation going on in them, and at once an immense quantity of blood returns from the venous system to the trunk, and there is an immediate revival.

A few words now upon asphyxia. There are experiments which show, as clearly as possible, that if you take two animals, one of them having had its temperature very much diminished, the other at a normal temperature, dip them both into water at the same time, the one having its temperature very low will survive the other twice, three times, and sometimes even five times; the duration of life under water being extended sometimes to twelve or fifteen minutes. The greater the previous diminution of temperature the longer the duration of life. There is another fact which is a very interesting one. It is well known that persons who have fallen into very cold water have in many cases been drawn out and revived after a number of minutes' immersion. Now, in experiments performed upon animals by applying galvanism to the part, so as to stop the heart's action, which is just the effect a fall into water will produce, we find life will last much longer, the animal will be able to survive a much longer stoppage of the heart's action from having had an attack of syncope

just before the asphyxia. This case, then, is exactly the reverse of the former. In one, syncope was cured by asphyxia, in the other, asphyxia is less mortal, because syncope previously existed.

In cases of death by asphyxia, if the temperature is low, there is one fact very similar to what we see in cases of sudden emotion producing arrest of the heart's action when the individual falls into cold water, and that is, that in the two cases—diminution of temperature, or dipping into water—the heart beats very much slower. Any patient attacked with asphyxia, whose temperature is much diminished, has a slow beating of the heart, and whose blood is red, is not exactly an asphyxiated patient; there is a mixture of syncope and asphyxia, and the patient has much more chance to recover. If you try to raise the temperature of such a patient you run the risk of killing him.

I shall now say a word upon poisoning. Poisoning is often the cause of death by producing such diminution of temperature as is incompatible with life. Take, for instance, two animals which have been poisoned with the same quantity of opium. Supposing the temperature to be cold in the room, lay them both on a table, one covered carefully with warm clothes, the other exposed to the cold, you find, *cæteris paribus*, that the one which is kept warm will survive, while the other will die. This fact we find with almost every poison of an organic nature, that there is considerable diminution of temperature produced, if not *per se* sufficient to cause death, enough, at any rate, to add a powerful cause to the other causes existing. Now this diminution of temperature is a feature which we can fight against, and it is therefore of

the utmost importance in cases of poisoning to use every means to keep up the temperature of the body.

I am now obliged to stop this exposition. My object was to show that by the knowledge derived from experiments on animals, from pure physiology, as well as from the knowledge derived from other researches than those made on animals, the knowledge we derive from microscopic anatomy, and even from simple descriptive anatomy, as regards the base of the brain especially,—from all these sources, combined with the study of pathological cases at the bedside,—from all these facts we can indeed advance with great rapidity, and we are enabled to form a sure diagnosis in many otherwise obscure cases. I may illustrate the importance of the knowledge of physiology, especially of the advances made in the science of late years, by the successful practice of many men in this city and in England; I shall not attempt to mention names, as no doubt the names of the men to whom I allude are present to your memory. To follow in the footsteps of these men, doing what they have done, and perhaps giving more time than they have given to the study of physiology, will give to you the greatest help both in your diagnosis and prognosis, and what will perhaps prove a still greater comfort to you, your conscience will always be at ease when you meet a complicated case. I hope that, as I have been speaking to many men of eminence,—men much more advanced than I am in life, in knowledge, and in practice,—I hope what I have said will not hurt their feelings, and that they will find an apology for me in the fact that, as I have been a physiologist before becoming a practitioner, I have been able perhaps to find more than most of you the advan-

tage of that science. I hope therefore there will be no offence in my conclusion.

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Journal de Médecine Mentale. Résumant au point de vue médico-psychologique, hygiénique, thérapeutique et légal, toutes les questions relatives à la folie, aux nevroses convulsives et aux defectuosites intellectuelles et morales, à l'usage des médecins praticiens, des étudiants en médecine, des jurisconsultes, des administrateurs, et des personnes qui se consacrent à l'enseignement. Par M. DELASIAUVE. Paris: Victor Masson et Fils. 1865.

Although the present is the fifth yearly volume of the above named journal, yet as only four numbers, beginning with January, 1865, have been received by us, we shall suppose it equally new to our readers, and devote a few pages to a *resumé* of its contents. The editor, M. Delasiauve, is a distinguished writer, and one of the physicians to the Bicêtre hospital. Among his principal associates, the names of Casimir Pinel and Berthier are also well known in psychological literature.

First in the January number, we have an analysis, by the editor, of a volume entitled *La Magie Maternelle*. The work is anonymous, but Dr. Delasiauve, in substantially lifting the veil to his readers, presents a case which may serve as the type of a large class of French litterateurs. Thirty years ago, Mr. X. was a writer of fiction, of the most extravagant French school. Occupied since with engrossing public duties, these have yet failed to extinguish the fire of his imagination. All the vain

problems of philosophy, and all the various dreams of social perfection, have for him an ever enduring interest. Thus impelled, this *résurrectionné* of literature, as he is termed, gives to the world a treatise on maternal magic. But the mysterious sympathies which belong to maternity form only a small part of the author's subject. He believes in animal magnetism, and extends this term to all the strange phenomena of feeling and imagination. Magnetism is everywhere, and all powerful. It was manifested in ancient magic, sorcery, and witchcraft, and is present in the induced somnambulism and spiritualism of to-day. Its forms are, indeed, infinite. For the rest, it has nothing of the supernatural, and is neither a fluid, as Mesmer taught, nor a form of nervous function, as physiologists have supposed.

Dr. D. applauds the generous inspirations of his author, but condemns his style, as being too romantic and diffuse. He also notices as a want in the writer, that he has not insisted strongly enough upon the necessity of increased culture, both moral and intellectual, for woman. It is only in this way, he thinks, that maternal influences can gain their full measure of power for the elevation of mankind.

The next article is a notice, by the editor, of a medico-legal report upon a case of some interest.

Adèle Brevard-Lacroix was the child of a dissolute and brutal father, who ravished her when seven years of age. Although so young, this outrage produced a most powerful and lasting impression upon her. She felt it even as a personal crime, and feared punishment for it in another world. Neither the assurances of her priest, nor the attentions of her husband, could drive this notion from her mind.

Her mother, who had defended her from her father, having died, she sought refuge in marriage, when about twenty-four years of age. But this did not free her from the wretched old man, who was finally convicted of having made lewd approaches to her little girls. The sight of her father, we may well believe, made her almost delirious with terror.

But the separation from him seems not yet to have been perfect. He menaced her continually, and uttered the most terrible threats against her husband and children. To add to her troubles, her husband became involved in his circumstances, and she was in constant dread of ruin and the prison.

Then her mind seems to have given way. She threw herself into the water one day, but was withdrawn, half dead. Afterwards she threatened repeatedly to drown herself and her children together, and at last, on the 22d July ult., she deliberately went to a canal with the children, and threw them in. One of them screaming for aid, the maternal instinct prevailed, and she endeavored to rescue it; but too late. She did not drown herself, for fear of future punishment, and remained that she might expiate her crime by suffering. But for her children she had procured safety and eternal repose.

At her examination before M. Teilleux, medical superintendent of the Grenoble Asylum, she was perfectly calm, and replied directly and truthfully to questions. She exhibited no marked indifference at the trial, but such an interest as she might have felt had some other person been its subject. She did not regret the act. It was painful indeed to do it, but in her deplorable condition, she said, it was the only thing that remained to

her. She had at first been strongly impressed to do it, but later had determined upon the act deliberately. The fear of damnation, for herself and children, seems to have been the controlling thought.

Dr. Teilleux giving as his opinion that the accused was, at the moment of the murder, under the control of a blind and irresistible impulse, the *procureur imperial* laid this opinion before the jury, who declared her not guilty, and she was placed by the court at the disposal of the proper authorities.

This case illustrates the tendency of an abnormal idea or impulse to become more and more fixed every day, when once rooted ; gradually lessening the healthy functions of mind, and leading finally to a condition of true mania. As to the indifference manifested both before and after the act of violence in such cases, Dr. D. does not consider this a condition of the affective faculties. "The heart," he says, "does not participate. The tumult of emotions is followed by a sort of paralysis. There exists a state of torpor, occasioned by the cerebral erethism, or the shock of the terrible situation."

Dr. D. also notes a pathological error of the reporter, who would classify this case among those of suicidal and homicidal mania.* The impulse was not, he thinks, primary, and acting alone would have been successfully resisted. It was despair, and a delusive belief, which compelled the horrible sacrifice.

The third article of this number is one of a series on mental pathology and the various forms of mental disease, and is also from the pen of the chief editor. We shall not, of course, attempt, from the fragment before us, to reproduce for our readers the views of Dr. Delasiauve in this important field of mental medicine. It may

be possible, we hope, for us to do so at some future time.

In the last number of the JOURNAL OF INSANITY, in an article on public provision for the insane, we referred to a determined attack upon the lunacy laws and the asylums of France, by a portion of the public and the press of that country. The concluding paper in the journal now before us is by Dr. Casimir Pinel, and treats of "The law of June 30, 1838, and its traducers." It is a vigorous, and to us a conclusive defence of that law, which has been attacked especially in its eighth article. By this article, denounced as a *lettre de cachet*, the certificate of a physician suffices for the sequestration of an insane patient. The same formality is generally all that is required in this country. If the patient is insane, this is, of course, quite enough. But if not insane, do the objectors remember how much more than this simple certificate is necessary to effect any evil purpose? There are the divided counsels of families, the watchful eye of neighbors, and especially the practiced scrutiny of the medical officers of asylums, whose professional and personal interests are all at stake. After thirty years' practice, Dr. Pinel has yet to learn of an instance in which these safeguards have been overcome, and a sane person unjustly deprived of his liberty in this way. This, we believe, can be said by every medical alienist in our own country. Dr. Pinel has challenged the production of such cases in France, and, though it is claimed there are numbers of them, he has not been answered. He does not hesitate, then, to proclaim such cases to be exaggerations, or pure fictions. That they are possible, is true enough; but that they can not be produced is, he

justly thinks, greatly to the credit of the law and its officers.

It would not seem vain to hope to overthrow at a single discussion that which the most simple reflection would have prevented at first. Nothing, however, is so tenacious and incurable as prejudice; and Dr. Pinel again addresses himself to his distasteful work. He has now to reply to an article in the *Presse*, and to a series of letters in the *Siecle*, which led to the famous petition of Aline Lemaire to the Senate of France. This woman, Lemaire, we may state here, was an attendant in the asylum at Marne. There at first she saw nothing wrong, but soon, in concert with a credulous priest, she prepared a paper charging the medical director with numerous iniquities, his assistants with debauchery, and that the patients were neglected or abandoned, and the institution given up to disorder. An examination was at once ordered by the government, and was pursued with great thoroughness. All the charges were proved false, and dismissed. But they still served the purpose of the press, and the petition to the Senate was also based upon them.

It is in this way that the attacks upon asylums and the lunacy laws began. They must have been most persistent, and formidable in their effect upon the public mind, or no doubt they would have been passed by with the silent contempt which they deserve.

We find at the close of the January number, a notice of two *Sociétés Mutuelles*, the Chateaufneuf Laborers' Union, and the *Prevoyance D'Ezy*. Instruction, mutuality, these, according to Dr. Delasiauve, are, for all who seek the good of their kind, the watchwords of the future. The extension of schools, and the development

of mutual societies, fill him with the liveliest pleasure. These societies are similar to those in this country, for the benefit of sick, destitute, and aged members, and thus far promise the best success.

In the number for February, Dr. Bourneville notices an article in the *Journal of Mental Science*, by Dr. L. W. Duckworth Williams, on amenorrhea as a cause of mental derangement. A number of cases in which this cause was attributed were given by Dr. Delasiauve in his journal (t. iv p. 15, and p. 241.) At Salpêtrière, Esquirol reported 27 similar cases, among 132 in which insanity was due to physical causes; and many others have found about the same proportion. The observations of Dr. Williams go to prove the utility of emmenagogues and iron where the insanity thus apparently depends upon amenorrhea. In five cases out of six a cure is reported. In the sixth, menstruation was restored, but the mental disease continued.

Following the above, and also in the department corresponding to the monthly record of our journals, is a brief abstract of several papers relating to insanity in Mexico.

The French expedition to Mexico will not have been fruitless, if a new career is opened for the progress of science. Medical investigation, it would seem, has already been favorably begun. Interesting researches in the hygiene and diseases of this vast country have been made by several medical men, of the French army and navy. Among these, M. Coindet, *médecin-major*, in a recent article (*Recueil de mémoires de méd. et de chir. milit.*, July, 1864), has added to his scientific claims by undertaking the study of insanity in Mexico. The physicians of two hospitals for the insane in that country

ably seconded him in his researches, which embrace the years 1861-2-3.

During this period, 201 patients were admitted into the hospital of San Hippolito, making a yearly average of 67. Of this number, 61 died, 27 were cured, 17 improved, and 12 remained without change. The unmarried were in the large proportion of 131. As to age, the numbers increase from ten to forty years, and decrease from forty to sixty, and beyond. Classifying according to Esquirol, Dr. Coindet gives the following figures: Mania 93, epileptic insanity, 21, dementia 20, mania of drunkards 15, ambitious monomania 15, lype-mania 11, idiots and imbeciles 9. The causes are given in 76 cases only, as follows: Abuse of alcoholic drinks 49, moral causes 22, heredity 3, injury to head 2.

In the same triennial period, 177 women were admitted to the asylum *del Divino Salvador*, the yearly average being 59. Of these 46 died, 28 were cured, 13 improved, and 22 unimproved. 112 were single. From five to thirty years of age, the numbers of patients increased. Beyond thirty years they diminished. 51 cases were between twenty and thirty years of age. The forms of insanity of the whole were: Mania 91, dementia 25, lype-mania 11, religious monomania 8, hysterical insanity 8, ambitious monomania 5, erotomania, mania of drunkards, idiocy, each 4. In 54 the causes were noted thus: Abuse of alcoholic drinks 19, moral causes 18, heredity 17. These patients came in part from the city of Mexico, in part from the country at large. In the city, the insane were to the total population as 1 to 2,667.

These statistics present some remarkable facts. The

single form a large proportion of the insane, and this is attributed, no doubt properly, to their isolated and less regular mode of life. But everywhere the proportion of celibates to the married is considerable. Men contribute to it equally with women. For the first, the active period of life, (from thirty to forty), is also that which gives the greatest number of insane. Among women, on the other hand, this period is from twenty to thirty, when the reproductive functions are most active.

As to alcoholism, Mexico does not differ greatly from European countries.

According to Dr. Coindet, the admissions are most numerous in the hot, and the discharges in the cold season. The deaths, more frequent in the rainy season, are generally due to cerebral meningitis, cerebral fever, apoplexy, and organic lesions of the brain.

The same subject has been investigated by another army physician, Dr. Cavaroz, but only for the table land of Guadalaxara. "Nervous affections," he says, "form of themselves a numerous and formidable class. One can have no idea of the prodigious number of women laboring under the various forms of nervous disease. Hysteria is very frequent, and assumes even the form of paralysis. * * * Cerebral ramollissement is common. * * * Mental alienation is unknown among the Indians, which shows that this terrible disease is peculiar to civilized nations, and results from their intellectual development."

There is, Dr. Teinturier thinks, in these reflections upon civilization by Dr. Cavaroz, an implied accusation, which seems hardly justifiable. His opinion is indeed shared by some alienists, but is scarcely based upon demonstrable proof. Dr. Delasiauve has expressed

himself much more cautiously, on a recent occasion. "I have not," says he, "given a formal opinion upon this very complex question, which can not be definitely decided without profound study. But, *à priori*, I hesitate to believe, and for this I have often given my reasons, that good in itself ever produces evil; that civilization, in other words, can be guilty of what has been attributed to it. There is, evidently, some misconception, some neglected condition, some element not eliminated, a confusion due perhaps to the mingling of the civilizing force with that of the impure *débris*, which, unwilling to be destroyed or driven back, multiplies itself to bar the way." (*Abeille médicale*, 12 déc.)

The problem, then, is far from being solved. Indeed, terms of comparison are wanting. Facts are necessary which do not exist. How, for example, shall we draw a parallel between the year 1400 and the present? Statistics of the insane, still so imperfect, are of recent date. We do not know of the middle ages, and indeed until nearly the present time, the number of insane, and the causes of insanity. Without these, however, all comparison is impossible.

We are compelled to pause here in our abstract from the pages of a new cotemporary. Enough has been done, perhaps, to inform our readers as to the spirit and ability which it brings to the cultivation of mental medicine. For ourselves, we welcome it heartily, and shall be glad to note its increasing patronage and success.

Public and Benevolent Institutions and Movements, with which the Connecticut Medical Society has been prominently identified. Being the Annual Address delivered before the Convention, in the Hall of the House of Representatives, May 24th, 1865, by the President of the Society, EBENEZER K. HUNT, M. D., of Hartford.

In this Address, the author has given us an interesting chapter in the history of the venerable Society over which he presides.

The Medical Society of Connecticut was incorporated in 1792. Its influence has contributed largely to the general advancement of medical science in our country. In the State itself it has been an active agent in initiating and carrying forward various important moral, intellectual and philanthropic measures connected with the public weal. One of its first acts was to offer Prize Questions "for discussion by the Faculty and Literati of the State and elsewhere," and among the premiums granted were those for "Parkinson's Voyage to the South Seas," and for "Dr. Fothergill's Works." In its earlier years it was the conservator of medical education in the State, and one of its most important duties consisted in the examination of candidates for the practice of medicine. This, however, ceased, when the medical school of Yale College was established, an enterprise to which the Society gave its sympathy and aid.

Early in the present century, a scheme, having in view alike the care of the insane and the curative agency of an institution for their relief, engaged the attention of the Society. This, at a time when but little was known, even by the profession, concerning the statistics or treatment of insanity, and when but three institutions existed in the land for the exclusive care of the insane, bespeaks, as our author says, both an active benevolence and an

intelligent boldness quite in advance of the age. The subject seems to have been broached first at the meeting of the Society in 1812, and in 1824 the Hartford Retreat was established. The various steps leading to the successful termination of the labors of the Society in this direction, are thus detailed by Dr. Hunt :

In the Proceedings of the Medical Society, as early as 1812, appears the following : A communication having been laid before the Convention, through Dr. John R. Watrous, from Dr. Nathaniel Dwight, of Colchester, upon the subject of a Hospital for Lunatics in the State of Connecticut, by the consideration of the importance of the subject, *Voted*, That the thanks of the Society be given to Dr. Dwight, for his communication, and Drs. Mason F. Cogswell, John Barker, Samuel H. P. Lee, Gideon Beardsley, Thomas Hubbard, Elijah Lyman, Richard Ely, Jr., and John T. Peters, were appointed to collect information concerning the lunatics in their respective counties, and report to the next Convention. Neither Dr. Dwight's communication, which so wrought upon the feelings of the Convention, nor any synopsis of it, or reference of any sort, appears in the Proceedings, so that we are left quite in the dark concerning it, except as to its leading or principal object. Whether or not the above Committee reported, as requested in the vote just recited, is not known ; yet, in the proceedings of the next year, a vote is passed, continuing the same committee, with the substitution only of the name of Dr. Joseph Foot for that of Dr. John Barker.

It might reasonably have been expected that a Committee, consisting of one from a county, and of members of well tried efficiency and benevolence, would, within a period of two years, have so far attended to the duty assigned them, as to have reported, in part at least, and to have found material wherewith greatly to increase the interest of the medical profession in the subject, and also to arouse the public mind to a realizing sense of its magnitude and importance. Indeed, the bare recital of facts, which were probably known to every member of that Committee, would have produced a powerful impression, had they been published, and spread abroad throughout the State. It nowhere appears, however, that this or anything else was done, by this Committee, worthy of their high mission ; and we are forced to the conclusion, that it attempted little, if anything. Doubtless a

variety of embarrassments with which they were little inclined to contend, were found, on nearer and more critical observation, to surround the subject; resulting in a failure, unworthy both of the cause and of the Committee itself. The Society, notwithstanding, still clung to the subject, with a commendable tenacity, and in 1814, it was voted, that Dr. Mason F. Cogswell be appointed to obtain information of the number of lunatics in the State, and the manner in which they are supported, by applying to the General Association.

It is mortifying to be obliged to record the foregoing vote, admitting, as it does, a failure on our part to procure information which we had deliberately undertaken to obtain, and which it was especially our province to procure, and a willingness to appeal to the Congregational Clergy of the State for the information required; a body having an efficient organization, doubtless, and reaching every town in the State; yet in no wise superior to our own, had we faithfully employed the means at our disposal. Dr. Cogswell performed the duty assigned him, and the following appears in the proceedings of the General Association, dated June 22d, 1815:

Whereas, Dr. Mason F. Cogswell and Dr. Nathan Strong, Jr., of Hartford—the latter name being omitted in the Proceedings through the oversight or neglect of the Secretary—on behalf of the Medical Society of Connecticut, have requested that the General Association would adopt measures to ascertain the number of persons in the State who are in any degree afflicted with lunacy—of what age they are—of which sex—at what age they became so—and what is considered the cause of the calamity—with any other particulars concerning those unfortunate persons, which may be important with reference to the establishment of a Hospital on their account; *Voted*, That the several District Associations be requested to attend to this subject, and make report to the General Association at its next session, concerning the several particulars above specified, and designating in their reports the towns in which such persons live.

In the proceedings of the Association the next year, is the following: Received the reports of the several District Associations on the subject of lunatics, and committed them to Rev. Levi Nelson, to form from them a general report. On a subsequent page, is found in substance Mr. Nelson's report, which is as follows: The Committee on the subject of Lunatics report, that, according to the imperfect returns received, they find one hundred and forty-six persons, who are in different degrees deprived of reason. Whereupon, *Voted*, That the

papers on this subject be delivered to Dr. Mason F. Cogswell and Dr. Nathan Strong, Jr., of Hartford.

No further reference to the subject appears in the proceedings of the State Medical Society, for several years. At length, however, in 1821, the measure was again brought forward in Convention, and with such spirit and determination as to render it certain that the matter had at no time been forgotten, but that active and intelligent friends had been raised up in its behalf, who were resolved to press it to a successful issue. Discussion, and a free interchange of opinions, resulted in the passage of the following resolutions: First, That Drs. Thomas Miner, Eli Todd, Samuel B. Woodward, William Tully, and George Sumner, be a Committee on the subject of a Lunatic Asylum, and report to the adjourned Convention. This was holden in conformity with the following vote, viz.: That this Convention will adjourn to meet at Hartford, on the first Wednesday of October next, *free of all expense to the Society.*

Meanwhile, their Committee was not idle, but industriously preparing for the Convention, whose action was, for the present, at least, to determine the fortunes of the proposed institution. When the time for holding it arrived, they were present with an elaborate, well written report, embracing statistical returns from seventy of the one hundred and twenty towns then composing the State, and much other highly valuable practical information. It produced its legitimate and expected effect upon the minds of the members, who endorsed it in the following vote: To accept and approve of the report of the Committee appointed at the Annual Convention in May last, on the subject of the establishment of an Asylum for the Insane. Not content to make their report alone, the same Committee submitted to the Convention a Constitution for the "Society for the relief of the Insane." This, after a free interchange of views, was also adopted as follows: *Voted*, To accept the Constitution for the organization of a Society for the relief of the Insane, reported by the same Committee, as altered and amended by this Convention. So carefully and judiciously was this paper prepared, both as to language and ideas, that it was adopted as the basis of the act of Incorporation, and remains, as to its principal features, in full force, to this day. In conformity with one of its provisions, our Standing Committee for the nomination of a Physician to the Retreat for the Insane, was established; also its Board of Medical Visitors. But the labors of the

Committee had not yet ended; funds were to be provided, and a Charter obtained for the proposed Institution.

To accomplish these indispensable objects, it was further voted that Drs. Thomas Miner, Eli Todd, Samuel B. Woodward, William Tully, George Sumner, Jonathan Knight, and Eli Ives, be a Committee of Correspondence to carry into immediate effect the plan laid down in the aforesaid Constitution; and that the following persons be County Committees to coöperate with them. Here follows the list of three from a County; among whom appear the name of the late Bishop Brownell, long President of the Board of Directors of the Retreat, Roger M. Sherman, Governors Wolcott and Peters, and others, among the best and most distinguished men of the State. The duties assigned to the Committee of Correspondence, though the County Committees had prescribed and important duties also to perform, were particularly arduous. They were required to meet monthly; cause to be printed such documents as seemed best suited to promote the object in view; appoint agents to solicit subscriptions in every part of the State; and by correspondence with the County Committees, and their own observation, see that their agents were faithful and upright; to transmit to the County Committees forms for subscription, to be opened in each town of the State, etc., etc. The County Committees were requested frequently to consult with each other, and communicate to the Corresponding Committee and to the public, whatever information may by them be deemed expedient. Succeeding this long catalogue of engrossing and responsible labors to be performed, was the following, worthy the early days of the Republic: "Neither the Committee of Correspondence, nor the County Committees, are to receive any remuneration for their services." The doings "of the adjourned Convention" concluded with the following votes: 1st. To appropriate \$200 from the funds of the Connecticut Medical Society, for the promotion of the objects of the Asylum. 2. To print seven hundred copies of its proceedings for distribution.

At the succeeding Annual Convention, \$400 more were appropriated by the Medical Society for the same object, making in all an appropriation of \$600, which, taken in connection with the vast amount of gratuitous labor performed in committee, and the numerous friendly offices performed by its members generally, can but be regarded as a most generous and noble act, worthy of all praise, and

to be held in lasting remembrance. I have, myself, seen the list of subscriptions taken under the auspices of this Committee, in the different parts of the State, and though a number appear for sums of \$200, or thereabouts, a very large proportion of them do not exceed \$25 each; many are in sums of \$1 each, and one for 12½ cents. From such small beginnings, and such long and self-denying labors, did this noble charity date its origin.

The act incorporating the Retreat for the Insane passed in 1822, but for some reason, to me unknown, it was repealed, and another passed in 1824. The only other vote, for many years thereafter, in reference to this institution, was the following, passed in 1824: *Voted*, That the Committee appointed to nominate a Superintendent for the Retreat for the Insane, be directed to request its Directors to publish the terms on which they receive patients, and any other information concerning the establishment which they may deem useful to the public. From this time forward, it passes beyond the fostering care of the Medical Society; entering upon its career of usefulness, which is to extend for long years succeeding, it is hoped, till all who need its peculiar ministrations can find a home, and, if possible, a cure within its walls. As its method of treatment, and the success which attended it, became known, those whose untiring efforts had been long employed in the noble work of founding it, were gratified and amply repaid for all their labors and exertions in its behalf, by finding it to grow in popular favor, and enlarged accommodations required to meet the public wants, until, years before the last of those honored and excellent men had passed away, it had grown, by repeated additions, into a grand and imposing structure; dispensing its beneficent offices far and wide. The subject of insanity, however, continued to claim the attention of the profession, notwithstanding the active agency of the Medical Society in the Retreat for the Insane, had, as compared with many former years, ceased. This is indicated in the resolves, which, from time to time, appear in subsequent years, one of which, passed in Convention in May, 1833, was as follows: Resolved, that a committee of two from a county be appointed to ascertain the number of insane persons in each town in their respective counties; designating the name, age, sex and color of each person, and dividing such persons into three classes. 1st. Those supported by themselves or friends; 2d. Those supported by private charity; and 3d. Those supported at the public expense; and that a

Central Committee of three be appointed to correspond with the County Committees and other gentlemen on the subject; and that the Central Committee report to the next Annual Convention. Drs. Horatio Gridley, Amariah Brigham, and George Sumner constituted the Central Committee, who, so far as appears, did not comply with the terms of the resolve.

The next reference to the subject is found in the Proceedings of 1837, and is as follows: A communication was received from the Directors of the Retreat for the Insane, with a copy of a memorial to the General Assembly, petitioning for an appropriation, to provide an asylum for the insane poor of this State. In consequence, it was resolved, that the communication from the Committee of the Directors of the Retreat for the Insane, be referred to a committee of one from a county, who reported the following: Resolved, that this Convention approve of the object of the memorial of the Directors of the Retreat, to the General Assembly, in regard to the indigent insane of this State.

The subject next appears in the Proceedings of 1839, in the words following: Resolved, that a committee of three be appointed to take into consideration the expediency of establishing a State Institution for the Insane Poor, and report to this Convention thereon; together with the course that would be most expedient for this Convention to pursue, relative to a petition now pending before the Legislature of this State on that subject. The Committee made the following report, which was accepted, viz.: That in their opinion the cause of humanity and the public good would be promoted by such an establishment. Such an institution has been advised by the Directors of the Retreat, by the former Conventions of this Society, and by the Committee of the Legislature to whom this subject was referred. We are of opinion that a committee of this Society should be appointed to confer with the Legislature, and express, as the opinion of the Connecticut Medical Society, their high estimation of the advantages which would accrue from the contemplated establishment. A committee of three was accordingly appointed, consisting of Drs. Horatio Gridley, George Sumner, and Archibald Welch. Again, in 1851, the subject appears, as follows: Resolved, that the President and Fellows of the Connecticut Medical Society, believing that the cause of humanity demands further provision for the comfort and well-being of the insane poor of this State, do most earnestly recommend to the Honorable, the General Assembly, now in session, to

make liberal appropriations to the Retreat for the Insane, to be extended to such only as are unable, by reason of indigence, to secure the benefits of proper medical treatment, and that a committee be appointed to present this resolution to the Legislature. This resolution was unanimously passed, and the committee appointed. Again, in 1853, it was resolved by the Connecticut Medical Society, in convention assembled, that after a careful and thorough examination of the Retreat, we are convinced that the cause of suffering humanity, and the best interests of society, demand that the appropriation for the insane poor be increased, in conformity with the recommendation contained in the message of His Excellency the Governor, to the Legislature, at its present session. With this, all official action of the Medical Society in reference to this Institution, ends; except such as is established by its Act of Incorporation.

Our space will not permit us to do more than allude to the early efforts of this Society in the cause of temperance, and its attempts, beginning in 1829, to establish an Asylum for the Reformation of Inebriates.

In 1855, the subject of provision for insane convicts was brought to the notice of the Convention by the delegates of Hartford county.

After a full presentation of the subject, and a free interchange of views, the following preamble and resolution were passed: Whereas, it appears to this Society, from the statements made to it to-day, and from the many published reports of former Wardens and Physicians of the State Prison, that insane convicts, in considerable numbers, are always to be found there, for whose comfort and recovery no suitable accommodations are furnished, or means employed; and believing, as we do, that the interests of humanity and the State are both concerned in a change, having for its object the recovery, if possible, but, at all events, the better care of the class above named; therefore resolved, that a committee of one from a county be appointed to bring this subject before the Legislature at its present session, and earnestly endeavor to procure such action in relation to it, on the part of this Honorable Body, as best promises to secure the end contemplated.

This committee consisted of Drs. Jonathan Knight, Simmons, Peters, Bennet, Casey, Dean and Hunt. Says the Secretary, in a

note appended to the Proceedings of that year, "The object contemplated in the foregoing resolution was, early in the session, brought by petition before the Legislature, and referred to the Committee on 'State Humane Institutions.'" The report of this Committee was able and convincing—making clear to all unprejudiced minds the great importance of the measure committed to them. In this report appear extracts from the reports of the successive Wardens, proving that the subject had long been before their minds, and their earnest and repeated appeals in behalf of this suffering class, furnish conclusive evidence of their views in regard to the importance of instituting some measure for their relief. First and last, every Warden then living was consulted, and several of the best informed of their Deputies, in relation to the matter, and with a single exception, there was but one opinion expressed in regard to it, and that unqualifiedly in its favor. The question was argued at some length in one of Capt. Pilsbury's reports, and often referred to in others, sustaining both by facts and conclusive reasonings upon them, the pressing necessity of some action for the relief of this suffering and peculiarly helpless class. Capt. Johnson and the then Acting Warden both appeared before the Committee, and sustained by further facts and concurrent opinions, the views of Capt. Pilsbury. The opinions of the highly respectable physicians, says the report, who have, at different times, had the medical charge of the Prison, sustain in their reports, and one of them before us, the views which are at this time, and have always been, entertained by the successive Wardens. A large and corresponding European experience is also embodied in this report. Indeed, nothing is omitted required to establish and confirm the opinions expressed by this Committee. In brief, the action of the Legislature resulted in its making an appropriation of \$1,500 for obtaining plans and specifications for a structure suited to supply the wants of the Criminal Insane of this State; with estimates of cost, the purchase of land, if required, etc., etc., the whole to be done under the direction of a committee then appointed, who were to report at the next session of the Legislature. The successive steps by which this eminently humane measure was conducted to a conclusion, are set forth at length in a report made to this Convention at its session in 1858, and published in its proceedings.

A memorial to the Legislature, reiterating in earnest terms and with cogent facts and reasonings, the desire of this body, that the Department for Insane Convicts, *which at that time had been long*

completed but never occupied, might be opened for their use, was passed in Convention in 1859, and referred to a committee to further, as far as possible, the objects of the memorial. The duties of this committee were faithfully discharged, but were without avail—the building designed for the class referred to, says the Secretary in a note, being ordered to be converted into a workshop, and the Department thereby abolished without trial. Not satisfied exactly with its own doings, the same Legislature appointed a committee of three to reconsider the matter and report to the next session. This committee, also, as all the preceding ones had done, attended faithfully to the duties assigned them, and reported at the next session in favor of the revival of the original plan, as greatly to be preferred to any that had been suggested or had occurred to them.

This report met the fate of its predecessors, and there the matter rests to-day; those for whom it was designed still languishing and dying in prison cells, without the possibility of relief or cure. Should such a state of things be permitted to endure? Is it not, so long as it lasts, a foul blot upon the otherwise fair fame of our State?

The facts set forth in this last extract are discreditable to the Legislature of the State; for having voted the money for a building suitable to the wants of this peculiarly forlorn and wretched class, and actually erected it, the Legislature “took the back track,” and refused to occupy it; and with a dash of the pen ordered it to be converted into a prison store-room. The opposing influence came principally, it is said, from the Warden, who, one short year thereafter, was fatally stabbed by a convict, who, to the last asserted that he preferred death to living under such a master.

S U M M A R Y .

LAW RESPECTING INSANE FEMALE CONVICTS.—Among the beneficent laws enacted by the last Legislature, was one which provides—that, hereafter, no female convict shall be sent to the State Asylum at Utica, and that persons of this class now in the Asylum shall be removed by the State Prison Inspectors.

The following is a copy of the law :

SECTION 1. No insane female convict shall hereafter be sent to the State Lunatic Asylum at Utica.

§ 2. The insane female convicts confined in the asylum at Utica, shall, within three months, after the passage of this act, be removed to the female prison at Sing Sing, or to the state prison at Clinton by the state prison inspectors, in their discretion, and be provided for in the said prison.

§ 3. No insane person confined in any county poor-house or county asylum, shall be discharged therefrom by any keeper of such establishment, by any superintendent of the poor, or by any other county authority, without an order from a county judge or judge of the Supreme Court, founded upon satisfactory evidence that it is “safe, legal and right” to make such discharge, as regards the individual and the public. The violation of this provision shall be deemed a misdemeanor, and be punishable by a fine not exceeding five hundred nor less than one hundred dollars in the discretion of the court. The Board of Managers of the State Lunatic Asylum at Utica, are hereby authorized to appoint two or more of the attendants and employés of said asylum as policemen, whose duty it shall be, under the orders of the Superintendent, to arrest and return to the asylum insane persons who may escape therefrom.

§ 4. This act shall take effect immediately.

THE WILLARD ASYLUM FOR THE INSANE.—Since the appearance of the April number of the JOURNAL, the Legislature of the State have passed an Act entitled “An Act to authorize the establishment of a State Asylum for the chronic insane, and for the better care of the insane poor, to be known as ‘The Willard Asylum for the Insane.’” The Act provides as follows :

SECTION 1. The Governor is hereby authorized to appoint three commissioners, for the purpose of selecting, contracting for, and purchasing a suitable site for the erection of an asylum for the chronic insane who are paupers, and in making such selection they shall first seek for and select any property owned by the State, or upon which it has a lien, and if that may not be done, then such other property as shall be suitable for their purpose.

§ 2. When a title can be secured to the people of this State for any property mentioned in the first section hereof, the treasurer shall pay on the warrant of the comptroller, to the grantor or grantors thereof, such sum or sums of money as may be required to pay for the same agreeably to the contract of said commissioners, if any sum is required.

§ 3. As soon after such site shall be obtained as shall be practicable, the said commissioners shall devise and adopt a suitable plan for the construction of the asylum buildings, if any construction is necessary, or the modification of buildings already erected and not occupied for other State purposes, with the specifications which shall be approved by the Governor, after which said commissioners shall contract for the erection or modification of said asylum buildings in pursuance of said plan and specifications, and the said commissioners shall select one of their number to superintend the building or modification of said asylum.

§ 4. The said commissioners, before entering on the duties of their office, shall give their bonds, with two or more sufficient sureties, to be approved by the comptroller, jointly and severally, to the people of this State, in the penal sum of ten thousand dollars, conditioned for the faithful performance of the duties required of them by this act, and in such form and terms as shall be prescribed by the attorney-general.

§ 5. The said commissioners shall have no interest, direct or indirect, in the furnishing of any building materials or in any contracts for the same or in any contracts for labor in the erection or modification of such asylum.

§ 6. The treasurer shall pay to the said commissioners, on the warrant of the comptroller, out of any moneys in the treasury not otherwise appropriated, such sum or sums of money as they may require for the modification or building of such asylum, at such time as such money may be wanted therefor, in sums not exceeding five thousand dollars at any one time, and the expenditure thereof to be duly and fully accounted for to the comptroller, with the vouchers, before any other sum shall be advanced.

§ 7. It shall be the duty of the said commissioners to make a detailed report of all the moneys received by them by virtue of this act, and of the progress which shall have been made in the erection or modification of said buildings, and of the probable cost to complete the same, to the comptroller, as often and in such manner as the comptroller shall or may from time to time require.

§ 8. Each of said commissioners, excepting the one mentioned in section nine of this act, to be appointed to select, contract for and superintend the building or modification of such asylum, shall be allowed for his services and expenses, while actually employed in the duties of his office, the sum of five dollars per day, and the expenses necessarily incurred in the performance of the duties required by virtue of this act; and the treasurer shall pay such allowance to each of the commissioners on the warrant of the comptroller, the vouchers for the same to be duly presented to the comptroller.

§ 9. The Governor is hereby authorized, by and with the consent of the Senate, to appoint six trustees, who shall be divided into three classes; the first class to hold their office two years; the second class four years, and the third class six years; and their successors to be appointed as above provided, shall hold their office respectively six years and until their successors are appointed. Said trustees shall have all the rights and powers and be subject to the same duties, in said asylum, as are now possessed by and imposed upon the Board of Managers of the State Lunatic Asylum at Utica, and shall be subject to removal at any time by the Senate upon recommendation of the Governor. Said trustees shall also fix the rate per week, not exceeding two dollars, for the board of patients. It shall further be the

duty of said trustees, as soon as portions of said asylum are completed and ready for the reception of the insane, to designate, in a just and equitable manner, and with the approval of the Governor, the counties from which the chronic pauper insane shall be sent to said asylums, as parts of the room shall be ready, from time to time, for the reception of patients. And the commissioner who shall be appointed as provided in section three of this act, to superintend the building thereof, shall, in lieu of all other compensation therefor, till the completion of said asylum, receive a salary of one hundred and twenty-five dollars per month, in addition to the actual expenses connected therewith; the same to be paid by the treasurer upon vouchers duly presented to the comptroller.

§ 10. The chronic pauper insane from the poor houses of the counties that shall be designated as provided in section nine hereof, shall be sent to the said asylum by the county superintendent of the poor, and all chronic insane pauper patients who may be discharged not recovered from the State Lunatic Asylum, and who continue a public charge, shall be sent to the asylum for the insane hereby created, and all such patients shall be a charge upon the respective counties from which they are sent.

§ 11. The county judges and superintendents of the poor in every county of the State, except those counties having asylums for the insane, to which they are now authorized to send such insane patients by special legislative enactments, are hereby required to send all indigent or pauper insane coming under their jurisdiction, who shall have been insane less than one year, to the State Lunatic Asylum.

§ 12. Seventy-five thousand dollars is hereby appropriated for the purpose of carrying into execution the provisions of this act, to be paid by the treasurer on the warrant of the comptroller, in sums heretofore named, from any money in the treasury not otherwise appropriated.

§ 13. The asylum hereby created shall be known as the Willard Asylum for the insane.

§ 14. This act shall take effect immediately.

In compliance with the first section of the Act, the Governor appointed a Board of Commissioners, consisting of the following members: Dr. John P. Gray, of

Oneida county ; Dr. John B. Chapin, of Ontario county ; and Dr. Julien T. Williams, of Chautauqua county.

RESIGNATION OF DR. TURNER R. H. SMITH.—The readers of the JOURNAL, and the members of the Association of Medical Superintendents, will learn with regret that Dr. Turner R. H. Smith has resigned the Superintendency of the Missouri State Lunatic Asylum.

Appointed to office when the institution was opened, in 1852, Dr. Smith has labored, during all these years, with zeal and marked success for the advancement of the interests of his charge. During the civil strife just ended, his administration was attended with peculiar embarrassments. At the commencement of the war, the Asylum was entered by rebel bands, and its equipments stolen or destroyed, and the patients dispersed over the State.

And now, after his institution has passed through so many vicissitudes and trials, and is again starting upon a career of usefulness, Dr. Smith withdraws from its connection.

Dr. Rufus Abbot, who has been connected with the institution for several years, as Assistant Physician, has been appointed as Dr. Smith's successor in office.

In connection with Dr. Smith's resignation, it gives us pleasure to place upon record the following honorable correspondence :

MISSOURI STATE LUNATIC ASYLUM, }
OFFICE OF SUPERINTENDENT, FULTON, Feb. 11, 1865. }

TO THE HONORABLE THE BOARD OF MANAGERS OF THE STATE LUNATIC ASYLUM.

GENTLEMEN :—In accordance with the rules of this Institution, I hereby tender my resignation of the office of Superintendent and Physician, which I have so long had the honor to hold, through the partiality of the members of your Board, past and present.

In pursuing this course, allow me to state, it is a source of no ordinary gratification that I do so with no other feeling than that of kindness and good feeling towards all identified with this noble charity. I leave with a grateful heart to your Honorable Body for that uniform support, enlightened counsel, indulgent forbearance, and kind sympathy, that have ever characterized your course in all my official labors. With profound regret I separate from my associates in duty, with whom my intercourse, officially and otherwise, has been that of unbroken kindness and confidence, without a single occurrence at any time to interrupt in the least the most cheerful and harmonious coöperation in behalf of the most helpless and dependent of our race. I leave our afflicted household with feelings of the deepest solicitude and warmest sympathy, but confident assurance they will continue to enjoy the instrumentalities devised by enlightened humanity for the promotion of their greatest good.

While I have been fully conscious of my many shortcomings in the performance of my varied, numerous, and sometimes exhausting labors, involving, as they have, the most weighty responsibilities, I trust an experience of nearly twelve years in the great cause of humanity has not been entirely fruitless in good results, and rejoice in believing I leave the institution prosperous and possessing the confidence of the people of Missouri.

My successor in office will have my best wishes and ardent desire that his labors may be attended with greatly increased success, and more fully accomplish the high and noble ends had in view in the creation of this best of charities.

With unfeigned gratitude and thankfulness to our Heavenly Father for the multitude of His mercies, guidance and protection in the past, my prayer is, that His choicest blessings may rest upon this noble work of justice and mercy, and all associated with it, and when all traces of the present generation shall have passed away, it may continue dispensing its rich favors to the most unfortunate, and perpetuate their truest good.

Very respectfully,

T. R. H. SMITH,

Superintendent and Physician S. L. A.

FULTON, Mo., Feb. 17, 1865.

DR. T. R. H. SMITH, SUPERINTENDENT AND PHYSICIAN, MISSOURI
STATE LUNATIC ASYLUM, FULTON, MO.

DEAR SIR:—With much sensibility we received your note of the 11th inst., tendering your resignation of the office of Superintendent

and Physician in the Asylum, the duties of which you have so long and ably discharged. Feeling a deep interest in the success of a charity which commends itself to the best feelings of the human heart, and anxiously solicitous for the welfare of that unhappy class of our fellow beings who have sought relief from life's heaviest misfortunes under its protecting shade, we could not but feel, in common with the entire community, a deep regret at the announcement of your intended withdrawal from its management. But how much more poignant must be the feelings of that class of its unhappy inmates who shall have any just sense of the value of your professional care and skill, and who will feel the extent of their loss involved in the withdrawal of that care and the cessation of those kind and consolatory attentions you know so well how to bestow on the unfortunate. Be assured, dear sir, that our urgent remonstrances against your resignation, which we have felt it our duty to make to you in a personal interview, were prompted by considerations such as these, and was no affectation of unfelt sensibility, and no unmeaning display of unfelt public spirit. We trust you have not thus regarded them, and that they have been by you respectfully received and considered. As you continue to express your desire to withdraw, after our remonstrance earnestly interposed, we cannot doubt that the step has been well considered by you, and that there exist overruling reasons in your mind impelling you to retire, we feel that duty to yourself requires us to yield and accept your resignation, which we now reluctantly do, in compliance with your earnest request.

In thus dissolving a connection which has ever been of the most agreeable character to us, permit us to express to you our high consideration and esteem, and our deep sense of regret at your withdrawal from a field of labor and usefulness in which you have won for yourself, professionally, the highest distinction, and acquired personally the warmest public and private esteem.

Respectfully, yours, &c.,

WILLIAM R. WILSON,
E. R. PARKER,
JAMES H. TUCKER,
EDWIN CURD,
H. LAWTHER,
A. C. SHEPARD,

Board of Managers S. L. A., Mo.

MORAL INSANITY.—The suicide of the murderer, George Victor Townley, has recalled public attention, not only to the history of his crime, but to the strength or weakness of the views held by certain medical authorities on what is now called "Moral Insanity." It is, we believe, argued that the tragic end of this criminal confirms the judgment of those experts on whose opinions the Derby justices acted in giving a certificate of his insanity. We are told that the sequel of the case proves the thorough consistency of Townley's mental history. He committed an outrageous murder because he was devoid of all moral sense and recognized no moral responsibility. He utterly disbelieved in a future state of rewards and punishments, and he finally dealt with his own life much as he had dealt with his sweetheart's life. It was a trifle which he might retain or fling away under no sense of duty to himself, to society, or to his Maker. This, as we are told, or shall be told, is a consistent life. It is ruled by madness throughout. Beginning with murder, it logically concludes with suicide. No moral convictions, no sense of responsibility—this is madness. We certainly agree with this estimate of the case so far as to be convinced that Townley's career is thoroughly consistent with itself. We should expect that such a character would end in self-murder. A man who murders his neighbor is very likely indeed to murder himself. One Judas Iscariot ran through precisely the same moral course; and it is quite possible that, under the psychological manipulation of medical authorities, he also would have been found to be morally insane. For all practicable purposes, he too committed murder—murder of the basest and most irrational kind—and ended in suicide. The conclusion, therefore, must be that M. Renan's distinguished client was, like Townley, "morally insane," and therefore irresponsible.

We have no objection theoretically to all this talk. It is a mere question of words, and saves the trouble of thought. If experts choose to say that all very great criminals and scoundrels of extravagant wickedness are *ipso facto* morally insane, because their vices and atrocious deeds exceed the ordinary dimensions of everyday sin, we have no particular objection to their saying so. All that comes of it is to deprive the word "insanity" of any real meaning. When, however, we come to a practical conclusion, we are at issue with the ingenious practitioners who hold this doctrine of moral insanity. We would hang the victim of moral insanity; they would not. We should not seriously complain if Borgia, or Cataline, or Nero—the

last of whom likewise consummated every vice and crime by a blundering attempt at suicide—were called morally insane. The phrase appears to be only used as convertible with intensely wicked; and if, contrary to the custom of ordinary speech, “insane” only means very wicked, anybody may in this way misuse language as much as he pleases, for aught we care. This is the fallacy that requires to be exposed. Insanity, as hitherto used by articulately speaking men, is inconsistent with responsibility; but, in the gabble of medical science, irresponsibility is proved by the mere fact of extraordinary immorality. If this is to be so, it will certainly simplify the criminal code. It only requires a new chart and scale of wickedness. Henceforth, the greater the knave, the less his guilt. A moderate criminal, who has only reached to the point of the moral thermometer registered temperate, is not insane, and may therefore be punished. Let his crime rise a few degrees in intensity, and he becomes irresponsible. If his moral perceptions are merely hazy and indistinct, we may fine, flog, and imprison him; but when, by a long course of indulgence in vice, and after a sustained absence of all checks and restraints on his passions, he has contrived to obliterate all moral perceptions, and is thoroughly brutalised, he is an interesting victim of obscure mental disease, whom it would be as unjust to punish for the consequences of the state of his brain as it would be to institute a criminal prosecution against a victim of rheumatic fever. We shall, of course, be told that this way of putting it is very unscientific, and that, unless we have made psychological analysis a matter of profound study, we have no right to express ourselves in this coarse and crude manner. Casual observers are not fair or adequate judges of what does or does not constitute lunacy. It is only an expert who is possessed of the mysterious solvent by which the subtle elements of insanity disengage themselves, and are revealed to the acute professional sense. There is this amount of truth in such language, that experience does, of course, give professional men superior skill in forcing real lunatics to expose their delusions. But in cases such as that of Townley nothing of the sort occurs. The expert has no advantage over the ordinary observer. All that the most acute observer, after the most diligent probing, could extract from him was that he was totally deficient in the sense of moral responsibility; but this fact was equally patent to the most unscientific observer. It wanted no M. D. to bring out the fact; the only question is as to the practical value of the fact. The difference is, that the medical authorities assume that the absence

of the sense of responsibility on the patient's—or, as we should say, criminal's—part toward society, implies the abeyance of responsibility on the part of society towards the criminal. It means that, when once a man says "I have no duties," therefore he has none. It means that it is enough for a scoundrel to deny that he recognizes law, for law to retire from the dispute and decline the jurisdiction which is thus imprudently contested. And when we are told that Townley's was an obscure case, and his disease was very subtle, and required the most refined and delicate diagnosis to detect it, the answer is that there was never anything plainer. Townley avowed throughout his moral, or immoral, code with the most patent and honest frankness: "I am not responsible for my actions; and, therefore, I do what I please or what I must." To say this, we are told, is insanity; to say this, we reply, is most insolent wickedness, and if you act upon it we mean to hang you.

We do not suppose that the scientific advocates of Townley's original insanity really think their views strengthened by the proceedings at the coroner's inquest. To bring in a verdict of unsound mind in a case of suicide is a matter of course, and in this particular case the jury acted under pressure throughout. The coroner, Dr. Lankester, is obviously a disciple of the school whose views we have been combating; and this is an objection to the office being held by a professional person. Such a person has usually foregone and private views to support. The surgeon of the gaol had no reason to pronounce on Townley's insanity. One test of insanity was certainly wanting, for the size of the brain he pronounced to be normal; but he was immediately informed by the coroner that organic disease of the brain is no proof of insanity. Insane persons often have no disease of the brain, and disease of the brain is often present in sane persons. Dr. Lankester, therefore, discards all the physical and material tests of insanity; what he looks for is "seeds of insanity," invisible tokens and inscrutable vague suspicions which are incapable of proof; he detects insanity by private and mysterious tests only known to the adepts, but quite perceptible to them even in cases "in which there are no appearances of insanity." To be sure, Mr. Bradley could find none in this case, though he was naturally on the lookout for them. The chaplain, however, was more malleable. The jury had been warned by the coroner to dismiss from their minds all the history of Townley's case; but no such warning was addressed to the chaplain. He therefore at once confines himself to the previous his-

tory of the deceased, and finding nothing of madness either in the past or present, as far as it was open to him, he argues backwards from Townley's death to his life. Certainly, from all that he had observed of Townley for twelve months, he should have considered him a sane man, but the suicide leads him to a different conclusion. Townley "was perfectly insensible to the sin of the act which he committed. He could not see that it was sin. He was morally insane." And, as a further evidence of Townley's insanity, the reverend gentleman adverted to the letter written by the murderer to his mother—a letter which, to the minds of those who do not believe in "moral insanity," is only a tedious farrago of coarse, heartless, and unfeeling nonsense, and plainly betrays, what there is no question of, that the writer acknowledged no moral obligations to God or man.

And here we may take leave of Victor Townley. His whole case has seriously compromised the administration of the law. But the evil has been at least partially retrieved. The mistake under which a certificate of his insanity was originally procured cannot be repeated, for an Act of Parliament has prevented its recurrence. The criminal lunatic was, to the credit of medical science—after an investigation which reversed the opinion of the experts who prevailed at Derby—transformed into a felon; and, though Townley escaped the consequences of his crime, he died a convicted murderer. This is something. It is not the first case in which, having been jockeyed into a miscarriage of justice, the Home Office declined to carry out the righteous decision of the law, and, by an inconsistency perhaps in some degree pardonable, refused to hang as vile a murderer as ever lived, only because the immediate execution of his sentence had been prevented by a series of successful intrigues. But Victor Townley's fate is hardly encouraging to the scientific gentlemen who preach the doctrine of moral insanity. Penal servitude for life, though alleviated by the perusal of "*Gil Blas*," "*Silvio Pellico*," and an opportunity of practising in German calligraphy, was found to be a punishment so intolerable that Townley preferred suicide to his experiences of Pentonville and his prospects of Portland. This life-history will scarcely encourage amateur atheists—even though, like Townley, they may be enabled to quote the traditionary records of family insanity in the case of their great grand-mother's aunt's second cousin twice-removed—to murder their sweethearts and themselves. Fanatics may, if they please, still continue to console themselves with the private opinion that disbelief in God and in a future state of rewards and punishments

is a sufficient proof of lunacy, even though this doctrine would have consigned Auguste Comte to a hospital. And fools who are puzzled by the presence and language of an audacious criminal towering above ordinary villany, may take refuge in the plea of moral insanity, careless or ignorant that the excuse might equally have availed for Palmer and Rush. But at present the law of England has not been changed since it was laid down in M'Naghten's case; and the opinions of fools and fanatics on the subject will not, we are persuaded, be fruitful in any practical results on the guardians and makers of the law. It has never been proved, because it never can be proved, that "moral insanity" is more than a mischievous juggle of words; and the world's common sense, and the necessities of social security, are likely to protect us against any inconvenient consequences arising from the theoretical admission of an ideal possibility. Experts are free to hold what opinions they think proper, so long as we decline to allow to the "morally insane" freedom to commit unpunished murder, rape, or robbery.—*The Saturday Review*.

PUERPERAL INSANITY.—The May number of the *Edinburgh Medical Journal* contains an interesting contribution to the statistics of Puerperal Insanity, as observed in the Royal Edinburgh Asylum, Morningside.

The writer, Dr. J. B. Tuke, has collected 155 cases of "so-called" puerperal mania, recorded during the last eighteen years in the case-books of the Asylum. He remarks that these cases comprise the more severe forms of the malady, inasmuch as those of a mild character are generally managed at home by the family medical attendant. The results of treatment of puerperal insanity, *as a whole*, therefore, are not attempted in this essay.

Dr. Tuke tabulates his cases under the following heads: the Insanity of Pregnancy, Puerperal Insanity, and the Insanity of Lactation. Of the 155 cases, 28

belong to the first group, 73 to the second, and 54 to the third.

Dr. Tuke discusses at length the distinctive characteristics of these several groups, and the prognosis and treatment in each, and epitomizes the results in tabular form. The following are his conclusions :

1st. That an increase of liability to insanity exists between the ages of 30 and 40 in child-bearing women, and that first confinements occurring at that period are peculiarly frequently followed by true puerperal insanity.

2d. That Primiparæ are more commonly the subjects of the insanity of pregnancy and puerperal insanity than multiparæ.

3d. That the insanity of pregnancy in the majority of cases is developed during the third, fifth, or seventh months.

4th. That the insanity of pregnancy is generally evidenced by melancholia or moral perversion, and that it is very curable.

5th. That the hereditary tendency is peculiarly traceable in these three forms of insanity, and that in a large proportion of cases it exists on the female side of the family.

6th. That puerperal insanity leaves a tendency to other forms of insanity.

7th. That the puerperal insanity characterized by melancholia rarely commences until nearly a month after labor.

8th. That a tendency to suicide is a very frequent symptom.

9th. That complicated labors are more frequently followed by puerperal insanity than natural ones.

10th. That cases of puerperal insanity, in which acute mania is the leading symptom, are more amenable to treatment than those in which melancholia exists.

11th. That the insanity of lactation does not ensue on the first nursing so frequently as on subsequent ones, and the longer the child is kept to the breast the liability necessarily increases.

12th. That the insanity of lactation is more transient than either of the other forms, and that where evidenced by acute mania is less persistent than where melancholia exists.

13th. That delusions as to personal identity are very common symptoms in the three forms of insanity.

14th That none of these forms of insanity are of themselves very fatal, except when complicated with other and especially inflammatory diseases. That they are all very amenable to treatment when such treatment is adopted early, and that the longer the patient is deprived of the benefits of an asylum the chances of recovery decrease.

15th. That this type of disease was anæmic in these three forms of insanity, which indicated the administration of a highly nourishing diet, but a very cautious use of stimulants.

16th. That the exhibition of narcotics is not beneficial where the leading symptom is acute mania.

THE DELIRIUM OF COLLAPSE.—Dr. Hermann Weber prefaced his paper by the remark that he did not intend to treat on the usual delirium arising during the increase and acme of acute diseases, but on a form which occurred occasionally after the crisis, or towards the termination of such diseases, and which was attended with the phenomena of collapse, a form which he was inclined to designate as the “delirium of collapse,” and which resembled much more the mental derangement usually termed insanity than the common delirium. After having alluded to the literature of the subject, he described seven cases, which in reality were equal to nine, as in two of them there were two separate attacks of disease; and he remarked that the delirium occurred when the pyrexia and the other active symptoms had already much abated; that in all there was a feeble, mostly frequent, and sometimes irregular pulse; that in the majority the face and extremities were more or less cold, and the skin in profuse perspiration. The delirium was characterized by the suddenness of the outbreak, which almost always occurred on waking, and more frequently in the early morning. The delusions were in the majority of cases of fixed nature, and the subjects of a gloomy kind, repeatedly traceable to the occupation of the mind just before the commencement of the illness. There were hallucinations of the senses, especially of hearing, but occasionally also of sight. The duration of the mental derangement varied from eight to forty-eight hours. The condition of the brain and nervous system appeared to be allied to anæmia; and to be connected with that peculiar shock not rarely experienced by the whole system during the decline, but sometimes also at the time of the crisis of acute diseases, and significantly termed “collapse.” The writer alluded also to the occasional but more rare

occurrence of transitory mental derangement, different from the common febrile delirium, during the increase of acute diseases, which might be similar to the derangement in the cases before the Society, and farther to the mental aberrations occurring during the advanced convalescence. He maintained, however, that not all the mental disturbances observable during the decline of acute diseases were of one and the same nature ; and considered also the peculiar delirium or insanity arising during, and at the decline of, rheumatic fever as different from the delirium here described as the delirium of collapse. Regarding the treatment, Dr. H. Weber thought that rest and the use of stimulants externally and internally, according to the degree of the collapse and the concomitant circumstances, would probably in the majority of cases suffice, but that opiates, which in this condition seemed to be well borne, even in large doses, appeared to accelerate the recovery.—*Medical Times and Gazette*.

SEWAGE DIFFICULTIES.—Dr. Clouston, Medical Superintendent of the County Lunatic Asylum, near Carlisle, has given to the Metropolitan Association of Medical Officers of Health the history of a series of cases of dysentery, typhoid fever, and diarrhea, so clearly due to the irritation of an adjoining field with the sewage of the institution, that all who are concerned in promoting schemes for a similar application of liquid sewage may well pause and ask whether it is so universally safe as is now commonly taken for granted. Thirty-one cases of dysentery and 20 deaths occurring in little more than thirteen months amongst about 250 persons is certainly a startling fact. Nothing, too, can be more clear than every link in the chain of evidence brought together by Dr. Clouston. The chief victims were, of course, the old and crazy and paralytic ; so that 15 of the 20 deaths might be put down to the conjoint agency of old age and infirmity ; but at least one young and robust man was cut off. But this history, while it shows that sewage irritation may be a most formidable poison, also shows the reason why. Sewage to be harmless must be absorbed by the earth. It requires a deeply porous soil, like that mentioned by Mr. Rawlinson in Lombardy, where beds of sand and gravel alternate, so that the water when it has lost its manure elements may find its way steadily downwards.—*Ibid*.

AMERICAN JOURNAL OF INSANITY,

FOR OCTOBER, 1865.

TESTS OF INSANITY.*

BY DR. JOHN E. TYLER.

Without doubt, any person who has read as much and thought as much upon the subject of insanity as each one of you, gentlemen, has done, realizes fully how difficult a thing it is to enunciate, in any short formula of words, or to make it clear by any brief description, what insanity is. And you cannot have failed to feel that the definitions which have been given by various and learned writers, have by no means been perfect definitions; that is, they have by no means distinguished insanity from everything else. And you no doubt have failed in court to make it evident to the unwilling apprehension of a sharp, cross-questioning lawyer whether there be such a state as insanity at all.

Dr. Combe has given us, perhaps, the best definition on record, to wit: "Insanity is a prolonged departure, without an adequate external cause, from the modes of thinking and the state of feeling usual to the individual in health." And nothing is more certain than this, that in considering whether insanity exists in a given case, the person's *present* state must be compared only with

* Read before the Association of Medical Superintendents of American Institutions for the Insane, at the Annual Meeting held at Pittsburg, Pa., June, 1865.

his usual and ordinary state, and not with any absolute or assumed notions of mental rectitude. Men differ so widely in their conduct and habits, that what would be manifest insanity in one man, might only be the natural and healthy and common conduct of another. When Blondin stretches his rope over Niagara river and rolls his confrère over it in a wheel-barrow, it causes no suspicion of his insanity; but if Secretary Seward or the Rt. Rev. Bishop of the Diocese should suddenly undertake such a trick, you would reach a different opinion of their mental state.

Practically, there is not often any great difficulty in *recognizing* a case of mental disorder; but often there is a difficulty in describing it to others, and this is because most of the common marks of insanity are comparative and not absolute. They are clearly enough marks of insanity when seen by the side of the individual's usual manifestations, as departures from his usual state of feeling and mode of thinking; but they lose their significance when exhibited absolutely, or as mere facts.

It has seemed to me that there is, however, a peculiarity in the state and manner of action of the insane mind which, though not entirely removed from the above category, is always present and almost always so characteristic of insanity, as to be worthy of notice, and able to give us often decided aid in coming to a just conclusion in doubtful cases of alleged disorder, and although this is hinted at in books, I do not remember to have seen it distinctly pointed out.

We all know that with the insane *self* becomes the central point of interest—the important consideration and the *authority*. I do not mean to say that when a person becomes insane, he necessarily becomes indifferent

to others, or entirely selfish in the ordinary sense of the word, or that he always abandons his pursuits or friendships, or whatever he has previously been interested in. But we all know how soon it is seen that his *relations* to everything and person are more or less changed by the different estimation in which he has unconsciously grown to hold himself. Upon any subject within the circle of his disease, facts and external circumstances have little or no influence with him. His convictions come from his own personal laboratory. They are original. Sometimes they are strictly intellectual results; often they grow from a morbid emotion. But they are coined by *him*, and not received from another. And they are ultimate authority to him. No sane man is ever half so sure of any most palpable truth as an insane person is of the infallibility of his own convictions. "I know it is so," and upon this he rests without a shadow of a doubt. "I know it is so," and this is more to him than all the facts and logic of the universe. Because his own opinions are not received, or are even scouted, never leads him to distrust or examine them, or even for a moment disturbs the ineffable complacency of his belief. In the more demonstrative and self-reliant forms of mental disease, the truth of the above will be recognized at once, but in the self-deprecating forms, as some phases of melancholia, the first impression might be a contrary one; but a little examination will show that however much a person may insist upon his vileness and utter unworthiness of the regard of God or man, still he is immovable in this belief of his vileness and unworthiness. "He *knows* it is so," and this to him, though it be the opinion of such a wretch as he holds himself to be, is of more weight than anything else *can*

be, though backed by all the piety and good judgment of the race. This egotism, this infallibility of self, we all know to be universal with the insane. Now, to trace this trait back one step to its cause or mental antecedent, we come to this fact, that the insane mind comes to its conclusions by *intuition*, by the intuition of disease, of course, still by intuition. A healthy mind by the senses gathers facts, compares them, reasons upon them, and comes to an opinion. An insane mind inwardly begets a conviction with which it starts, and then gathers facts to support that conviction, if it is of importance to gather them at all. This is the quality of the insane mind which I have thought to be, oftener, perhaps, than any other, constant and distinctive, and therefore symptomatic and useful in diagnosis. This infallible knowing by intuition or by the instance of mere feeling.

Another general sign of mental disorder which has been too little estimated, and often estimated wrongly, is the inconsistency of the insane. We have no doubt been misled by the celebrated definition of Dr. Locke, which is, "Madmen do not appear to have lost the faculty of reasoning, but having joined together some ideas very wrongly, they mistake them for truths, and err as men do who argue rightly from wrong premises." Some insane men do argue rightly and keenly from wrong premises, but is this the case with all or many? And when we come to the conduct of the insane, is not all logic at fault? Is not one of the notable and distinctive characteristics of insanity its inconsistency with itself?—and yet it is a popular notion that a mono-maniac only *starts* wrong, and that his conduct and conversation are consistent with his wrong starting. Indeed, it is a maxim in English law that a man acting under an in-

sane delusion acts consistently therewith, *i. e.*, acts as a sane man would were the delusion a truth. To be sure, a man who believes that he is a dog, may bark and do what else he can to imitate the brute, and a man who believes that his toes are glass, will take good care of them. But when we follow out even these cases, we find them full of inconsistencies, and when we come to another class, it needs but the stating to show that consistency is not apparent. For instance, I have seen a man who insists that he is *dead*, but he talks and eats and reads the papers, and does many other things which dead men do not commonly do. I know a man who declares that he is the Almighty, but forgetful of his high responsibilities, he sleeps soundly every night, he chews tobacco, he loses his temper, and swears in a style suggestive of anything but divinity.

I allude to this as showing that the inconsistencies of insanity may oftener serve us as proofs thereof than they commonly have done.

Lastly, there is another general sign of insanity, mentioned in all our books, which I believe I am not wrong in saying is not studied enough, nor often enough used by us as a practical *test* of disease. We are all familiar enough with it, and influenced by this familiar knowledge, whenever a patient is brought to us who must be unerringly selected from the company of his sane companions, but we do not analyze it thoroughly enough to serve us in deciding a doubtful case. What I mean is found in the changed and peculiar expression of the countenance, of the eye, of the manner, movements, attitudes, etc. Outer proofs these of a morbid inner condition, which can hardly be depicted to the inexperi-

enced, but are learned by an acquaintance and domiciliation with the mentally diseased.

Dr. Bell remarks, in an unpublished paper, that "all profound and grave maladies have their specific physiognomy more or less clear and capable of being described; some of them awfully clear and pathognomonic like the odor of cancer or the face of advanced phthisis. Insanity has its own delicate characteristics of face, eye, manner, reasoning, feeling, which can be read by the expert, but which are not appreciable to the casual observer. His power in this regard is not capable of being transferred to another mind, but must die with its possessor. To illustrate: let there be a miscellaneous mass of insane hospital letters intermixed with an equal quantity of correspondence from the 'dead letter office,' I undertake to say that there shall be a certain earmark, so to speak, applying to the former which shall enable the expert to select it without much hazard of failure."

PATHOLOGICO - ANATOMICAL MANIFESTATIONS OF INSANITY.*

TRANSLATED BY J. WORKMAN, M. D.

When we take under deliberation the anatomico-pathological records of psychiatry, we proceed in our task not without hesitation, and a certain degree of mistrust in a large proportion of the observations laid before us, or rather, perhaps, in their value in relation to mental therapeutics. However remote from our purpose it may be, to mistake the instructive importance of this branch of medical science, we must yet, at the very outset, confess that the pathological anatomy of mental diseases still presents numerous unsolved problems, which it is our duty to indicate.

We find that a large proportion of all the diseases which affect the brain and spinal marrow run their course without the slightest psychical disorder. On the other hand, the more delicate differences, (*i. e.*, between the healthy and the diseased state,) which may be presented, (and it may with fair probability be assumed that such minute transformations exist,) have hitherto evaded our means, or rather, perhaps, our methods of investigation.

Nor should we forget that it is not in the central nerve system alone, or at least not always there, we should seek for the foundations of psychical disorders; and that we ought to distinguish clearly between pri-

* Pathologie und Therapie der psychischen Krankheiten für Aerzte und Studierende bearbeitet von Dr. Maximilian Leidesdorf.

mary and secondary agencies. This distinction appears to us to be sometimes less rigidly, or less correctly made than it should be; but it must be admitted that sometimes it is certainly very difficult to exhibit it.

It is still incumbent on us to assume that every mental disorder, however it may commence, whether as a simple mental loss of tone, or as fully declared insanity, is founded in organic changes, from which the brain suffers, (*erleidet*,) and these changes may commence in it either primarily or secondarily. After disposal of the primary diseases of the central nerve system, there yet remains for our pathological research a wide field, in which we should endeavor to discover the connection of these diseases with those of other organs, and to determine the relation subsisting between the former and the latter.

At the outset of our inquiries, the blood, its motor-organ, the heart, and the canals through which the blood makes its circuit, force themselves on our notice; after these, the organs of respiration, and in wider range, with more or less instancy, all the remaining organs of the body. The immediate relation to the brain of those morbid processes, which are developed in both the hard and soft envelopes of this organ, and necessarily become very influential on its functions, demands careful consideration. On the very threshold of our investigations, we are met by the question: Whether the functional disorders of the brain rest always upon nutritive or formative disturbances, which may be capable of anatomical detection? This question we at once answer by a decided negative. The disorder of excitement, (abnormal stimulation,) may certainly proceed from nutritive stimulation; that is to say, an existing nutritive or formative stimulation, (excitement,) may

cause functional disorder: but the demonstration of definite changes in the arrangements of the brain elements, and an altered exchanging process in them, leading to functional disorders of a psychopathic form, is a labor outside the realm of possibility; and however valuable may be the conclusions arrived at, from pathologico-anatomical researches generally, and on the brain in particular, yet we do not flatter ourselves that we shall be able to account for every mental disorder by constant changes in the brain.

From pretty extensive research, it is our conviction that, in many mental disorders, search may be made in vain for any pathologico-anatomical changes, and that in a probably large proportion of cases, no definite anatomical changes will be discovered. This holds good, in the highest degree, in relation to the so called primary disorders.

When psychopathy leads to death, then naturally we may say, pathologico-anatomical investigation is not resultless; when it is undertaken with the proper knowledge of the structures examined, it is very rarely so. But we must frankly admit that we have before us merely the final issue of a certain process, and a retrospective decision upon the antecedent anatomical disturbances, is often but mere conjecture; yet we firmly believe that when once mental diseases come to be regarded as a process consisting of various progressive stages of development, or a residual process resting upon some particular degree of development, we shall then succeed in studying and demonstrating this pathologico-anatomical commencement, as well as their advancement and final issue, in a great number of cases.

Our present pathologico-anatomical views have, from

an overruling necessity, their initiation in the final morbid issues presented to us; and of late years psychiatry has been largely enriched by Rokitansky's classical work on incrementation of the connecting tissues (*bindegewebswucherung*) in the nervous system, which has since been appropriately followed up by Prof. Wedl's valuable researches on the pathology of the blood vessels.

The author devotes considerable space to the

ABNORMALITIES OF THE SKULL.

But as these are, to the psychiatrist, of trivial value, we have deemed their introduction here uncalled for, with the exception of the two following:

ROKITANSKY'S GRAVID OSTEOPHYTE.—This formation may be developed from the third month of pregnancy, onwards, in the form of plates, on the inner surface of the skull, especially on the frontal and parietal bones, where it is most considerable. In many cases we find similar bony layers on the outer surface, but in general in the form of a delicate coating. This disappears before the end of gestation, consequently it is unjust to designate it puerperal osteophyte. But though this is the usual fact, or, so to speak, the normal issue, yet cases are met with in which the plates remain permanent, and in repeated pregnancies new layers are deposited on the inner surface of the formation, so that finally a considerable diminution of the cranial space may thereby be produced. Whether this may stand connected with mental diseases, we cannot as yet pronounce; but we may give full credit to Griesinger when he expresses the opinion that it is permissible to hold, that gravid osteophyte may be regarded as connected with many of

those conditions of melancholy disorder, and psychical caprices, which are observed during pregnancy.

CARIES OF THE PETROUS PORTION OF THE TEMPORAL BONE.—This disease mostly proceeds from the cavity of the tympanum, or from inflammation of the labyrinth; it leads to separation of the dura mater, or to sinus-thrombus, and then lays hold of the cerebral membranes, or of the brain itself.

We generally find it associated with basilar meningitis, and abscess of the middle lobes. But though the caries of the bone has a chronic course, the inflammation of the meninges and the brain is usually acute, and it terminates life under the appearance of meningitis.

It is certainly remarkable that though Jacobi observed seven cases of insanity combined with caries of the petrous portion of the temporal bone, yet similar cases have been rarely observed in the Hessian rather large asylum.

ABNORMITIES OF THE MENINGES.

ABNORMITIES OF THE DURA MATER.—The structural morbid affections of the dura mater, and the new formations proceeding from it, merit our chief attention.

Hyperæmia of the dura mater seldom exists independently; it is almost always associated with hyperæmia of the other cerebral membranes. The vessels appear as if injected, especially on the outer surface; and nothing farther than this is observable.

Inflammation of the dura mater most usually falls upon only one side of the membrane; it is very seldom observed on both the inner and outer surfaces, and the issue of inflammation in these different surfaces is different. From the relation of the dura mater to the cranium, inflammation of its outer surface, especially in

an acute form, may be followed by the most serious consequences.

Rokitansky alludes to limited inflammations of the outer stratum, and to the more formidable, which succeed to injuries, or are produced by caries of the skull. Virchow designates inflammation of the dura mater *pachymeningitis*, and it is much to be wished that this term should be generally adopted, for we are quite unable, in the perusal of the cases heretofore included under the collective name, meningitis, to know which of the cerebral membranes has been the seat of the inflammation.

Virchow designates *pachymeningitis external* or *internal*, according as its seat may be in the inner or the outer stratum of the dura mater. The former appears, in its lower grades, as an injection, succulence, and flabbiness of the outer surface, and it proceeds speedily to production of pseudo-membrane, by which the dura mater may undergo a great increase in thickness. It generally ends in recovery, but it remains perceptible in its pseudo-membranous residue, and the consequent adhesions to the inner table of the skull; a post mortem condition very often observed amongst the insane. In sclerosis of the skull, accompanied by inward hyperostosis, this adhesion is also very usual.

In some more serious cases, inflammation of the outer stratum may run to suppuration and the pus will be found deposited in larger or smaller collections or clots, between the dura mater and the cranium.

This form of *pachymeningitis externa* is almost always of traumatic origin, or connected with caries of the skull. In the former it provokes absorption of the inner table of the skull, or necrosis. Rokitansky mentions, as an

Issue of this prevalent inflammation, the appearance of flat, glandular, cheesy masses on the outer surface of the dura mater, which have pitted themselves into the skull.

Very different is the pachymeningitis interna, though, like the external, it rarely manifests any considerable post mortem effusion; this process is but seldom verified on the dead subject, but the products of antecedent inflammations are largely indicated. Whether these products are issues of an active, or of a chronic process, our present knowledge in morbid anatomy does not enable us to decide. As the chief product of the inflammation, we find first a brine-like coating on the inner surface of the dura mater, and beneath this small vascular growths are discernible. With the organization of this jelly-like membrane, in a more or less fibrous form, commences the deposition of the soft pseudo-membranes, and it proceeds until these, apparently, almost entirely vascularized, attain, through continuous increases, the thickness of one or of several lines, and consist of a single layer, or of many layers. Here and there are found ruptures of the recently formed vessels, especially in the earlier stages, and consequent on this, hemorrhagic deposits, which indicate their previous existence by rusty brown pigment flakes in the pseudo-membrane.

These inflammatory processes, so rarely leading to suppuration, occur either as primary or as secondary morbid conditions, and are most commonly met with in the insane.

The many-layered pseudo-membranes generally ossify in considerable plates, but frequently also in circular forms, or in small plano-convex pieces, which are generally easily separated from the dura mater.

In most cases we find hyperostosis of the skull, ridging of its inner table, especially in the frontal region,—adhesion of the dura mater to the skull, opacity, and ridgy thickenings of the inner membranes.—(Rokitansky.)

Among the pseudo-plasms which grow from the dura mater, there are to be noticed sarcoma and lipoma; the latter, according to Meckel, very seldom proceeding from the inner surface. Virchow mentions also hæmatome of the dura mater. We also meet with carcinoma, in its various forms. Tuberculosis is very rare.

Carcinoma of the dura mater grows both inward and outward; in the latter direction it erodes the skull, and in the former it imbeds itself in the brain, and forms attachments with the arachnoid and pia mater. Cancerous tumors of the dura mater, on either its outer or inner surface, and of round, or flat round form, have been described by some writers under the name of *fungus of the dura mater*. We have most usually found them to proceed from the inner surface, in the form of medullary carcinoma, generally associated, especially the smaller sized, and in bulk about equal to a pigeon's egg, and thus constituting the fibro-plastic growths of Lebert.

If the growth proceeds from the outer surface of the dura mater, the skull will in most cases be soon penetrated, and the growth, enlarging outwards, will be, as it were, ensnared in the orifice, till finally, having disorganized both the hard and soft structures opposing it, it spreads and enlarges totally uncovered, and usually runs into decomposition, destroying the patient by septic poisoning, by repeated hemorrhages, or by meningitis.

Förster has found also the epithelial cancer proceeding in this form from the dura mater.

The preceding growths from the dura mater are not found in the insane more frequently than in the sane, consequently we must not regard them as having any necessary connection with mental disease.

Before proceeding to the diseased conditions of the arachnoid, we would make a few observations on thrombus and inflammation of blood vessels of the dura mater.

Thrombus of a sinus appears either as an escape of blood from the veins of the soft membranes, or from the contiguous part of the sinus itself. Thrombi are deserving of attention, as proceeding sometimes from marasmus, (atrophy,) and sometimes from inflammation of the sinus with which they are connected. The vessel most commonly affected is the great falciform sinus.

In whatever way an obturating thrombus may originate, it is, as such, of the utmost import to both the brain and its membranes. Unless under unusually favorable circumstances, the collateral current speedily augments, and thus compensates for the interrupted circulation, passive hyperæmia, oedema, meningeal thickenings, and various varicosities result. The thrombus, if it has not already done so, soon extends itself so as to obstruct all surrounding vessels. In the brain, especially in its cortical portion, we find oedema, which has been evoked by aggressive and destructive hemorrhages.

ABNORMITIES OF THE ARACHNOID AND PIA MATER—ARACHNOIDEAL HYPERÆMIA—HYPERÆMIA OF THE PIA MATER.—Rokitansky makes the following observation on these affections: “Although we but seldom have the opportunity of seeing the arachnoid in a state of real vascular injection, yet there are numerous structural changes which must have proceeded from hyperæmia of

this membrane, and of the pia mater." We shall therefore briefly treat of the pathological processes of both membranes together, as meningeal anomalies, and separate them only where it appears necessary. Hyperæmia of the meninges is an apparently common diseased condition, and it has, for the specialty of insanity, a peculiar interest. Our first inquiry must be as to the causes of this hyperæmia; and here it becomes manifest that it is most generally induced by some process which causes a stagnation of the venous blood, either in the superior veins only, or mainly in them. We have already pointed out one morbid process, that of thrombus of the cerebral sinuses, as a cause of meningeal hyperæmia. Besides this cause, we may instance contraction of the foramen lacerum, and the various diseases of the heart, which produce obstruction of the venous circulation; also those lung diseases which obstruct the pulmonary circulation, and thus hinder the discharge of the blood into the right (?) ventricle, such as lung emphysema, pleuritic exudations, etc. We might here also instance the many times denied, and as many times affirmed *hyperæmia ex vacuo*, in atrophy of the brain. All these are passive hyperæmias; but active congestions, vascular commotions, (*Wallungen*,) are also presented, and as causes of them we must refer to excitation of the meninges themselves, (*ubi stimulus, ibi affluxus*,) and to an aroused activity of the left ventricle, especially when it is hypertrophied.

Whenever any such meningeal hyperæmia arises, from whatever cause, the cortical surface of the brain, for obvious anatomical reasons, speedily takes part in the disease; and this fact is of the highest moment to the physician. The vast importance of cerebral hyperæmia

in mental diseases must be abundantly manifest from its own very nature. We may well believe that this morbid condition is present in the majority of cases, as the primary pathological state.

As the first consequence of acute meningeal hyperæmia, we have to mention hemorrhage, which, either in small clots or in streaks, appears on the membranes, and very commonly we find associated the so called capillary hemorrhage of the brain.

Though meningeal apoplexy is very often met with in children, (Barthey and Rilliot,) and is the cause of most of the sudden deaths of the new born; we find it unfrequent in adults, with the exception of those cases caused by fractures and other injuries of the skull.

Those hemorrhages which proceed from the arachnoid, over the convexity of the cerebral hemispheres, are well deserving of notice. This extravasation escapes into the formerly so called arachnoideal sac, and likewise between the dura mater and the arachnoid, into a space which we must regard as created by itself, as we find the hemispheres compressed and flattened by it. In such cases, the separation of the constituent elements of the blood seems speedily to commence, and therefore it happens that the extravasated fibrin forms on the periphery a sac, of the form of the above indicated space, and thus envelopes the other constituents of the extravasation. The contents of the sac, nearest to itself, consist of fibrin, and accordingly as the contained fluid is more or less colored by transformed pigment, it appears red, or yellow, or yellowish brown. The outer surface of the sac appears smooth and glossy, but the inner, clotty and fibrillated. The quantity of contained fluid varies from a few ounces to a pound, and it is at the

commencement always of a dark red color, and continues so until the blood by transformation becomes variously colored, and finally after the complete precipitation of pigment, it becomes colorless and transparent. After longer continuance, the wall of the sac becomes organized into vascularized membrane, and completely shuts in its more or less metamorphosed contents; or the fluid is resorbed, and the walls of the sac approximate, and may be reduced to a single thick laminated pseudo-membrane. Rokitansky has observed that in such cases, the parietal bone is thinned; but in other cases it has been thickened.

It is manifest that resorption of the contents of the sac can but seldom occur, as the brain after long continued compression does not easily become extended again; yet a few such cases have been observed.

More trivial extravasations appear to occur frequently. They leave behind them a brown-red lamellated membrane, of more or less thickness or thinness, and are usually attached to the dura mater. All these hemorrhages are found commonly enough in the insane; but they cannot be brought into any classified relation with the different forms of the mental disease.

A further result of meningeal hyperæmia, we find to be thickening and opacity of the meninges, together with enlargement of the Pacchionian granulations from the arachnoid. The latter usually penetrate the dura mater, and press into the great sinus, or imbed themselves in the skull.

Another of the results of these meningeal hyperæmias is the collection of serum between the membranes, constituting the so called œdema of these parts.

Thickening and opacity of the meninges appear some-

times as an extensive darkening, (Undurchsichtigwerden) and sometimes in the form of tendinous spots or stripes, which accompany the blood vessels. This condition is very often associated with oedema.

INFLAMMATION OF THE MENINGES—ARACHNITIS—MENINGITIS.—Inflammatory derangements of the nutritive process fall with equal incidence upon the arachnoid and the pia mater, and we but seldom meet with arachnitis alone, or with an isolated inflammation of the pia mater.

In *arachnitis*, the exudation, in a few cases, appears on the outer surface of the arachnoid, generally as a purulent coating, of some lines thick, after wiping off which, the pia mater is found uninjured, or merely in an oedematous state.

Meningitis proper appears, according to Rokitansky, in two forms. In the first we find a more or less turbid, thin, milky or thickish, yellowish or yellowish-brown fluid, or again a more consistent, curdled product, lying between the arachnoid and pia mater, and either widespread or collected in particular places, and often constituting distinct seams around the larger vessels. This inflammatory product holds close to the cerebral periphery, and the process is extended only in the highest grades of the disease, to the meninges on the base. It always appears most conspicuously on the great hemispheres. Their cortical portion is, there, because of its intimate connection with the pia mater, always transformed; it appears ridgy, pale, very tumid, and here and there sprinkled with small extravasations.

This meningitis may be either a primary or a secondary affection of the meninges; in the latter form it may be connected with pneumonia, or inflammation of the serous sacs, (? of the thorax.)

Rokitansky's second form consists in this, that between the pia and arachnoid of the base of the brain, a greyish, pasty, inflammatory product is met with, manifestly of tubercular character; that is to say, consisting of small, pale-grey, tuberculous knots. These formations are met with most remarkably in the fissure of Sylvius, and about the chiasma. This inflammation is, in all cases, associated with acute hydrocephalus, and we invariably find the ependyma of the ventricles, especially upon the septum and fornix, in such cases, reduced to a white broth.

This meningitis is never primary. It occurs either as metastatic in sepsis, or as a tubercular meningitis in tuberculous patients. It generally proves rapidly fatal.

Meningitis is apparently but seldom discovered in autopsies of the insane, and it has, therefore, to the specialist far less interest than the meningeal hyperæmia, previously spoken of. In a few rapid cases of acute insanity, with furious excitement, meningitis has been met with. It is an altogether arbitrary assumption to designate, as not unfrequently has been done, habitual hyperæmia of the meninges, with opacity and œdema, and perhaps distension of their veins, as *chronic meningitis*.

ŒDEMA OF THE MENINGES.—The most usual œdema, in various degrees, we find as a collection of serum between the arachnoid and pia, of more or less yellow color, and of uniform distribution. It is generally combined with atrophy of the brain, and the former deep and wide furrows between the convolutions are occupied by the serum. It is next most usually found in drunkards, in those affected with heart disease, and in insane

persons who have suffered under severe excitement, (hyperæmia.)

Partial œdemas are frequently met with, of very great interest. After removing the dura mater, we would almost think that one or other of the cerebral convolutions is wanting, and the vacated space is filled by serous effusion between the arachnoid and pia, to such an extent that the former is, by the fluid mass, forced out in a bottle form.

The so called *hydrocephalus externus*, a collection of serum between the dura mater and arachnoid, in which the brain must be compressed sideways, (?) has not yet been distinctly observed.

ABNORMALITIES OF THE EPENDYMA.

We regard, with Virchow, the ependyma as that rather thick part of the general containing membrane which holds together the nerve elements in one central organ, called by him the Neuro-glia; it lines the ventricles, and is covered with epithelium.

Hydrocephalus here claims precedent consideration, as it is to be regarded as a disordered nutrient process in the ependyma.

We widely distinguish acute hydrocephalus from the chronic form, and under the general head we do not admit external hydrocephalus, because not a single credible case of this form has ever come under our knowledge.*

* The author, in this passage, as well as in the preceding one, which we have marked with (?), broadly asserts his disbelief in external hydrocephalus. He may never have met with a case, and may therefore not regard as worthy of credit, ("*glaubwürdig*,") any that he has read of; still his disbelief can not annihilate fact. In the 13th volume of the JOURNAL OF INSANITY, page 15, July, 1856, the case

Acute hydrocephalus is rarely an essential primary disease of the ependyma, but appears, in a majority of cases, as an inflammatory nutrient disorder of the same, induced by the extension of inflammation from the basilar meninges through the foramen of Bichat.

When acute hydrocephalus terminates fatally, we find the ependyma presenting wavy ridges, or perhaps thrown into confused contortions, and the adjacent brain substance similarly affected. The latter has become transformed into a whitish, or, according to the tint of the effusion, a yellowish, yellowish-red broth. In general, however, this softening is induced by simple oedema, (collateral inflammatory oedema,) and in this fact is grounded the so called *white* or *hydrocephalic* brain-softening.

Farther from the ependyma, the consistence of the brain presents the normal condition, and only a few lines may separate the diseased from the sound parts. The septum lucidum and the fornix are always the most remarkably transformed, and often appear as a mere white broth.

In the ventricles, which appear enlarged, we find, especially before the brothy softening and deliquescence have set in, an apparently inconsiderable quantity (about an ounce) of almost clear serum; most generally, however, this is rendered turbid and flocculent, from inter-

of M—— C——, which, among others, was read by the translator before the Association of Medical Superintendents of Asylums, at the annual meeting held at Cincinnati, will be found to have been indisputably one of external hydrocephalus. Not less than a pint and a half of clear fluid was found between the dura mater and arachnoid. The symptoms of the case indicated meningeal inflammation.—*Tr.*

mixed epithelium, and the debris of the disorganized brain substance, and probably also from pus cells. In a few cases, and especially in those with pus formation on the basilar meninges, we find pus in the inferior cornua. This form of hydrocephalus commences in a few cases as primary, but in others, according to the circumstances of certain anatomical modifications, it advances to a chronic form; whilst in others again it commences as an inflammation of the basilar meninges, and thence proceeds to the ependyma, and terminates in effusion in the ventricles. In the last of these it occurs most abundantly in tuberculous subjects; it is met with in both children and adults, and, according to Rokitansky, even in the foetus. In children it is occasionally associated with cerebral hypertrophy. The whole brain appears, in these cases, more moist and swollen than natural; the inner membranes over the cerebral periphery are bloodless and tender; the dura mater is distended, and the inner table of the skull is rough, from erosion.

In general, the course of the disease is fatal; only very moderately developed cases have recovered. Unless in those insane persons laboring under tubercular disease in their organs, this form of hydrocephalus is not frequent.

Chronic hydrocephalus may be either congenital or acquired. In the congenital we include also those in which, though the disease at birth is not manifest through the size of the skull, yet even from birth onward, the skull increases remarkably in bulk, and the patient finally becomes a hydrocephalic monster. This congenital hydrocephalus attains amazing development, even to the extent of ten pounds and over of deposited serum, in the ventricles, as the unclosed sutures offer no

resistance to distension. The brain is large, its convolutions are flattened and broad, and the inner membranes are bloodless and dry. In the most remarkable cases, the cerebral hemispheres float in the surrounding water, and between them we observe the broad corpus callosum extended upwards. In the cases of most enlargement, the roofs of the enlarged lateral ventricles become as thin as paper, and have the appearance of a mere thin layer of brain substance laid on the membranes, so that we might almost believe that the great hemispheres, as well as the corpus callosum, were wanting. The lateral ventricles appear like bags; their protuberances are flattened; the optic thalami are drawn asunder, so that the floor of the third ventricle is increased in width, but the cavity is not enlarged in its downward axis, as a bladder.—(Förster.)

Acquired chronic hydrocephalus has, only under certain circumstances, anatomical characteristics which distinguish it from the congenital form. If, for instance, it should be developed in a skull not yet fully ossified, then the size and form of the skull may gradually be transformed to that of chronic hydrocephalus; but if the disease occurs in a skull in which the sutures have already closed, or in which they are even partly united, then we cannot naturally expect any change of form. Although, from reasons quite manifest, the quantity of serum in the ventricles, in cases of congenital hydrocephalus, may be very considerable, yet in those of the acquired form it is seldom more than six to ten ounces.

Both forms may, if an arrest of the effusing process takes place, be of long duration, and yet we cannot assign to them any special group of symptoms. Even in relation to the psychological results, we must speak with

great cautiousness. It is well known that hydrocephalic children often manifest an unusually rapid mental development, and further that they often suddenly die under convulsions; and in such instances we may, with all propriety, seek for the cause, in a so called acute after-shove (*nachschub*,) with brain softening.

We have sometimes, in persons of the highest mental powers, found so much serum in the cerebral cavities that, adding to this fact the coördinate thickening of the ventricular ependyma, we have been forced to admit, over the dead body, the presence of chronic hydrocephalus. That, however, the disease in its most remarkable grades, is most common in demented persons, and that it is especially encountered in those who, in consequence of chronic alcoholic poisoning, pass into dementia, and finally sink, with or without paralysis, is a well known fact.

To attempt to bring the various forms of mental disease, but especially the primary forms, into relation with hydrocephalus, is, as yet, entirely unpermissible. Chronic hydrocephalus proves fatal either by pressure on the brain and paralysis, or by the intercurrent of acute oedema, or by meningitis.

Rokitansky has mentioned yet another form of acquired chronic hydrocephalus, necessitated by a vacuum in the cranial cavity. If, for instance, the brain in process of atrophy becomes retracted and shrivelled in, then it usually happens that what the cavities gain in space thus vacated, (and among the others, the ventricles,) is filled up by effusion of serum. (*The effusion from hyperæmia by means of vacuum*, page 420.)

To this form appertains preëminently *senile* hydrocephalus, in which effusion into the ventricles, from the

waste of old age, is induced. In these cases we always find thickening of the ependyma, and this is to be regarded in such cases as very probably a participation in the common condensation of the neuro-glia in the brain.—(Klob.)

We have already pointed out inflammation of the ependyma as the immediate cause of acute hydrocephalus, and we have also spoken of an essential as well as of an induced inflammation of the basilar meninges.

Among the new formations of the ependyma, that which claims our first attention is its thickening, through membranous growths; this, under the unopposed incitation of habitual hyperæmia, (chronic inflammation?) advances, and is either uniform, so that the whole one-fold ependyma appears thicker, often to the extent of a line or more, and feels leather-like and tough; or on the other hand, it feels rough, with fine granulations and thickenings in form of broad plaits are observed, in consequence of which enlargements of the ventricular walls are here and there produced. We chiefly, as has already been mentioned, meet with these conditions in chronic hydrocephalus.

Sarcoma and *Lipomà* of the ependyma are both rare; so also are new deposits of bone, as the result of membranous formations in form of small scales.

Medullary Sarcoma is very rare. In the lateral ventricles cellular cisticercus is sometimes found floating.

With respect to the abnormities of the venous plexuses, we have merely to mention that they are affected with morbid conditions similar to those of the basilar meninges, and they present similar morbid changes. The dilations of these vessels, sometimes met with, may merit attention; and likewise the so called cystic de

generation of their tufts, which are most prominently observable in old persons.

ABNORMALITIES OF THE BRAIN.

Defect of some parts of the brain is a most unusual autopsic fact, and is but of very subordinate consideration in psychiatry; since we never, or very rarely, have observed, with exception of cases in which defect of the apparatus of the nerves of sense has existed, any particular symptoms present, which could be ascribed to the defect.

In like manner, it is not known that the absence of the corpus callosum has been accompanied by any manifestations, which, during life, had made themselves known.

The same remark holds good in many cases of asymmetry of the hemispheres, which is almost always associated with asymmetry of the skull, and is commonly caused by the latter; but the contrary may, as we have in another place remarked, be the fact.

HYPERTROPHY OF THE BRAIN.—By this we understand an increase of the brain, by new deposition of brain elements; that is to say, by integral growth of the constituent parts of the brain-mass. In a certain sense we can justly speak of a proper hypertrophy, so far as not, however, to involve the condition of transformation of the normal texture; it is hardly, however, to be assumed that the nerve elements themselves are the parts which undergo a numerical hypertrophy; it appears rather that in the process the neuro-glia alone increases; and Klob is of the opinion that paralysis and death ultimately result not often from the compression caused by the hypertrophy, but much rather from the disintegration of

the constituent elements of the nerve mass, through the enlargement of their envelopes, and especially in cases in which the skull has not yet closed.

We find, on opening the skull, the inner table is often rough, the dura mater is distended, and on raising it, the brain, as it were, gushes out. The inner membranes appear dry, bloodless, and very tender; the convolutions are flattened and broad; beyond an unusual strength of the medullary layers, and a remarkable paleness, nothing worthy of notice is observable. The ventricles are contracted. In the absence of other than these post mortem indications, we are forced to deny the presence of brain hypertrophy in the sense in which it has above been defined.

This hypertrophy, (which the author has just said is not hypertrophy in the terms of his adopted definition,) frequently occurs in childhood, and proves fatal. It may, however, steal in at a later period, and the head may assume the hydrocephalic contour.

Hypertrophy must frequently be regarded as the result of hyperæmia of the brain, but under what circumstances the latter is developed must be left as an open question. In children, hypertrophy occurs chiefly in conjunction with rachitis, glandular tumors, and interrupted involution of the thymus gland.

With regard to the relation between hypertrophy of the brain and insanity, nothing is yet known, and our investigations of the subject have as yet resulted in failure.

Cases of cerebral hypertrophy, in epilepsy, occur often. Scipio Pinel (*Pathol. cerebr.* page 339,) describes a few cases in paralytic dementia, (?).

ATROPHY OF THE BRAIN.—This is either *total* or *partial*.

The processes through which it passes are various. The nerve elements and the ganglia may atrophise without complication, or they may do so with fatty or colloid degeneracy. On the other hand, the general bond-texture of the brain may retract, or become more or less callous, and may thereby act destructively on the respective brain elements suspended by it.

Hyperæmia and inflammation rank next as disponents to atrophy; but anæmia, and more especially ischæmia, may lead to it; the latter usually by way of fatty degeneracy.

In *general atrophy*, which is usually most fully developed in the medullary portions, we find the brain convolutions small, and the fissures between them very deep and wide. If we carry a section through the greatest breadth of the medullary portion, we observe that the centre of Vieussens is small, and the smutty whitish medulla shrinks along the line of section, and most where it runs out into the convolutions. The vascular canals all appear wide, and Rokitsansky states that the retracted medullary substance around them feels like a wall.

The ventricles are always widened, and the ependyma is thickened. The medulla, under such circumstances, always acquires a remarkable consistence, and feels tough and leather-like. General atrophy is next found as a disease of age, though it may be met with in the marasmus of precocity; it is very common also in chronic dementia. In paralytic dementia it appears in the cortical portion of the brain, as the highest grade of brain wasting. We often, however, observe atrophy to be limited to merely a small portion of the brain, and in the majority of such cases it is nothing more than a residuum of a by gone encephalitis, which may often have been in

foetal life. Both the partial and the general form of atrophy lead, as already mentioned, to a remarkable increase of consistence. The so called cerebral *sclerosis* is nothing more than the ultimate result of a very prosperous atrophy.

In like manner we have announced brain hypertrophy to be most usually an increased growth of the neuro-glia, so must we in general regard atrophy as a disease of the neuro-glia, in which, by its transformation into a fibrous texture, it leads to retraction of its contents.

Here and there this disease of the neuro-glia assumes the character of the structural metamorphose as well as that of the substituting exuberance; and this takes place when the nerve elements, in consequence of a further additional, or even of the continuance of the existing disorder, are destroyed.

We can readily suppose that under the influence of severe protracted hyperæmia, which very probably closely approximates to inflammatory disturbance of nutrition, the cortical portion of the brain becomes diseased in such a manner that its nerve elements perish, and at the same time the neuro-glia undergoes membranous incrementation; so that this new deposit, which at first was slender and soft, and afterwards has become hardened and retracted, displaces the perished nerve elements. A process of this sort is exhibited in the post mortems of the majority of cases of paralytic dementia, and was first pointed out by Rokitansky in his already cited work on membranous incrementation in the nerve centres, from which we extract the following passage :

The morbid changes which the cortical portion of the brain manifests, stand in close connection with contemporary or by-gone diseases

of the pia mater. It appears of a smutty brown, a dark, or a pale color, according to the character given to it by the hyperæmia. The outer layers appear, in the first stage, spongy, soft and moist, and upon separating the pia, they stick to it in observable streaks. In the later stages, when the membranous increment is more mature, they appear, as has been before stated, resisting, dense, and remarkably hard and blanched; finally, they seem like a hard, stiff, thin callous.*

In exquisite cases, the outermost medullary layers are no longer to be found,—they have perished.

In cases of dementia with epilepsy, according to Rokitsky, circumscribed callosities in the cerebral medulla, and in the corpora striata, should be found.

In addition to the preceding morbid conditions, we meet with colloid and amyloid corpuscles in considerable quantity. We also find varicosities of the veins, and aneurismal widenings of the small arteries, opacity and thickening of the arachnoid, and pseudo-membranes on the inner surface of the dura mater.—(Pachymeningitis interna.)

This form of atrophy (? epileptic,) is generally associated in its histological nature, to a concurrent atrophy of the medullary portion of the brain, and in such we encounter the highest grades of the disease. We shall have occasion to revert to the development of this process in subsequent passages.

HYPERÆMIA OF THE BRAIN.—Cerebral hyperæmia is, as hyperæmia of any other organ, either a so called *active* fluxion, with the character of vascular ebullition, or it is a *passive* one. We may dispense with this distinction, if, in relation to the brain, we designate the former *primary*, and the latter *secondary* hyperæmia. In the normal state of the attractive relation between the blood and the textures, the

*Rare facts, we believe.—*Trans.*

brain substance is able to secure to itself the nutrient excitation of its own demand for blood; and we believe more consideration should be attached to this circumstance than to the space relations between the brain and its bony case, to which, by so many writers, so much importance has been attached. If we reflect upon the attractive relations more closely, or in other words, on the exaltation of the excitability of the brain on one side, and on the nutritive excitation on the other, we easily come to the conclusion of resulting hyperæmia; nor is it a distant assumption, that in a certain degree of intensity, psychical exacerbations may produce hyperæmia of the brain, and thus act as an immediate excitation to it.

But we believe that although hyperæmia in this manner appears as somewhat secondary, and the psychical impulsion must be regarded as primary, yet the prolongation and augmentation of the once aroused morbid condition must be actually linked with the anatomical changes which the hyperæmia first induced. We have, therefore, on anatomical grounds, held firmly by the already indicated division into primary and secondary hyperæmia.

Under *secondary* hyperæmia we understand only that which, for example, through impeded reflux of the venous blood, is induced, and also that resulting from vacuum, in cerebral atrophy.

That hyperæmia which is developed in hypertrophy of the arterial heart, belongs to the *active* form.

The anatomical characteristics of hyperæmia of the brain consist in a certain swelling of the organ, with a dark redness of the cortical portion, as well as of the central grey parts. On cutting through the medulla, we

observe an unusual number of blood points, of enlarged size; the meninges and venous plexuses appear generally much injected, and at the same time more moist than usual from œdema; and in conjunction with this condition, we find a ridging or puckering of the membranes, especially of the cortical layers. As the immediate result of hyperæmia we observe widening of the vessels, which affects not merely the capillaries, but also the veins, especially in the passive form; and the latter are found manifestly varicose, particularly in the meninges. That, under the influence of hyperæmia, not only œdema may be induced, but likewise more profound associated disorders in the series of progressive metamorphoses, is beyond all doubt. As one of the most serious consequences of hyperæmia, we must instance *hemorrhage* in its various forms.

Hyperæmia of the brain is either developed suddenly, and thus leads, with the early supervention of some of its results, especially œdema or hemorrhage, to early death; or it produces, in its well demonstrated manner, longer enduring and permanent transformations of the brain substance, which being once developed, proceed undeviatingly onwards; or finally the hyperæmia may be transient, and may give place to the normal condition.

ANÆMIA OF THE BRAIN.—Anæmia of the brain is either a participation in general anæmia, or it falls upon the brain alone, and it is in the latter relation especially of extraordinary importance. Overlooking the well known causes of general anæmia, we merely state that in relation to the second form, it is most usually caused by contraction or closure of the vessels leading to the brain, or of the canals through which they enter. An anæmic brain appears pale, and in most cases moist; in its section

we observe few or almost no blood points, and the vessels are collapsed. This is the proper place to speak of the *ischæmia* of Virchow, as that condition in which the arterial current is retarded, or suddenly cut off by means of thrombus, or by clotty obstruction. Under these circumstances, as is manifest on physiological grounds, œdema or hemorrhage is sooner or later developed, consequent upon the collateral pressure on the neighboring small vessels.

Let us suppose, for example, an artery of the fissure of Sylvius suddenly embarrassed by a stray plug, *ischæmia* is speedily developed in the corresponding part of the medullary portion, and the same symptoms are presented as if the parts embraced were destroyed by hemorrhage. With the sudden cessation of the arterial circulation, the function of the corresponding part terminates, and Virchow's *apoplexia ischæmica* is manifested.

In melancholia and dementia cerebral anæmia is a very common, and often the only post mortem discovery.

HEMORRHAGE OF THE BRAIN.—This is a comparatively rare fact in post mortems of the insane. After cerebral hemorrhages there remain appreciable psychical impairments, and in some cases the hemorrhage is the cause of mental disorder, and from this forward dementia and cerebral atrophy proceed in unison.

We distinguish *hemorrhagia cerebre gravis*, as one extreme, from *hemorrhagia capillaris* as the other. The former is developed chiefly in heart and vascular diseases, in which the vessels become to some extent destroyed by fatty degeneracy, and it affects mostly the medullary portion of the hemispheres, and the corpora striata and thalami optici; it makes itself known in some cases by disorganization of the brain substance in the ventricles.

We have besides the preceding forms of cerebral hemorrhage, that which results from traumatic causes. Small blood deposits heal up; but this result is somewhat various, according as the hemorrhage is nearer the centre, or on the surface, or in the cortical layers.

In the central cases, the blood serum is resorbed, the fibrin is transformed into a membrane more or less colored by pigment, and either constitutes an apoplectic cicatrix, or encloses the unabsorbed portion of the extravasated serum, and thus constitutes the wall of an apoplectic cyst. In both instances we find as the residuum of the blood-color elements a rusty brown pigment.

In peripheral hemorrhage, which is usually caused by thrombus of the sinuses, or of the meningeal veins, and produces destruction of greater or less stripes of the cortical layers, there is established in the localities of the destroyed textures, in the form of incrementation of the connecting tissues, and deriving its material from the extravasated fibrin, a substitutional callus, which is found of a yellow color, imparted to it by the change of the blood pigment. With this callus, as a general rule, the pia mater becomes blended, and in consequence of the contraction of the former, a sort of vault is formed, having for its roof the arachnoid: this cavity is filled with serum.

Capillary hemorrhage affects either the cerebral medullary parts in their totality, or it extends itself into the medullary tract of the spinal cord. In the latter instances it is generally the result of acute diseases, (typhus, or the exanthemata, etc.)

In meningeal hyperæmia and meningitis, we find capillary hemorrhages in a few places in the cortical portion of the brain. Partial capillary hemorrhages ap-

pear likewise in the vicinity of cerebral tumors and inflammatory deposits; or, in acute hydrocephalus, in the ventricles.

For further information on these subjects we refer the student to the text books on pathological anatomy.

CEREBRAL ŒDEMA.—By cerebral oedema we understand an unusual quantity of contained serum within the brain substance, whereby it is, in general, rendered softer, moister, and heavier.

Cerebral oedema consists, according to its very nature, in an augmented effusion of serum into the cerebral textures, and consequently whatever tends to promote this, will be a cause of oedema. We distinguish the acute from the chronic form by reference to the time taken in the development.

It may, in general, be said that the more acute oedema is, the softer is the brain; in very acute cases the brain is reduced to a brothy consistence.

Acute oedema generally manifests itself as a partial affection, and in fact as the collateral of inflammatory deposits. Thus we often observe the ventricles, in inflammation of their ependyma, in a state of white brothy softening, (hydrocephalic, or white brain-softening,) and we find in the vicinity of encephalic deposits, or of pseudo-plasmen, which readily take on inflammation, a softening,—an oedematous destruction of the brain substance, in which it appears on section of the affected part, yellow, or yellowish, (yellow softening.)

Acute oedema, being as we have stated, most usually partial, is attended by results which vary according to its location. In hydrocephalus, death is usually the result of acute oedema of the central parts of the brain. We frequently also observe that death speedily, indeed,

sometimes instantly, follows collateral œdema with white or yellow softening of the cerebral mass, on the entrance of inflammatory disorder in and around extended pseudoplasms in the brain. Sometimes sudden attacks of hyperæmia end fatally, because of acute general œdema of the brain substance.

Chronic œdema is found especially common in anæmic persons, and in marasmus resulting from various diseases accompanied by wasting of the blood mass; also in tuberculosis, heart defects, typhus, sepsis, etc.

Among the insane we find chronic cerebral œdema very common, especially in melancholia, dementia, fatuity, (advanced dementia,) without paralysis.

Our own observations have not established the statement made by some others, that œdema of the brain is the distinguishing associate of melancholy with stupor.

BRAIN SOFTENINGS.—Three forms of brain softening have been distinguished according to their color,—the *white*, the *yellow*, and the *red*. We have already treated of the white softening as œdema of the brain substance, and as acute œdema chiefly occurs in the neighborhood of the ventricles affected with hydrocephalus, this form has also been named hydrocephalic brain softening.

If the serum escapes from the blood vessels in conjunction with red globules, then the softened mass is colored by the diffused coloring matter of the blood, and if the effusion has been of any long continuance, the parts appear, in consequence of metamorphose of the pigment, yellow, and we designate this condition of the œdema *yellow softening*. When, however, from direct hemorrhage, the brain appears softened to a brothy consistence, or when œdema is associated with destruction of small vessels, so that the extravasated blood is mixed

with the effused serum, the brain substance is softened and red colored; it appears not unlike a blood pudding. This constitutes the *red softening*.

Since this softening immediately follows hyperæmia, and is most remarkably manifested in cases in which hyperæmia can be regarded as the first stage of brain inflammation, it has generally been called the first stage of encephalitis.

All these conditions are found in the insane in about the same proportion as in the sane, and we therefore, in these pages, lay little value on them.

INFLAMMATION OF THE BRAIN.—Cerebral inflammation is a disease apparently but seldom met with by itself; it never attacks the entire brain, but appears always in only particular portions. It is introduced by hyperæmia, which being accompanied by augmented transudation, results in puckered or ridged elevations of the membranes; and in addition we often find hemorrhage, as indicated by the softened dark red spots, already spoken of.

This red softening, (so called inflammatory,) is much more generally induced when once the exudation breaks down or splits asunder the brain texture in the inflamed spots, in consequence of which rupture of the small blood vessels is unavoidable. With the entrance of exudation, but especially with its further progression, and with the production of pus and the textural incrementation in the deposit, produced by inflammation, the aspect of the diseased part changes. A varying number of spots are observed, which are separated from the normal brain by collateral oedema and small blood effusions, and are, in some parts, soft and dark red, in others of a pale yellow color, and somewhat resisting; they contain more

or less oedematous fibrin, and here and there we see little gaps of clear serum, or serum rendered turbid by exudate elements, or by pus cells.

It is not, however, always very easy to distinguish one of these inflamed portions of the brain from carcinoma, and it requires much care to avoid falling into the error.

Encephalitis affects the medullary substance, or it confines itself to the cortical portion of the brain, in greater or less sections. It generally proceeds in a sub-acute form, and it appears in many cases to destroy life either unaided or through the accession of a wide-reaching collateral oedema in the brain mass. In other cases the disease advances to a fatal result by development of diseased conditions, secondary to itself, in other organs, especially under paralysis.

The *brothy softening* and the *cell-infiltration* of Durand Fardel have been mentioned as issues of encephalitis, wherein the resorption of the brain elements destroyed by exudation, has been made to appear possible, by the process of fatty metamorphose. In the cases of brothy softening, fatty metamorphosis enters into the inflammatory seat, so that in its place a soft, whitish-yellow broth is observed. In cases of cell-infiltration, certain fat metamorphosed parts are, by resorption, already removed, and we find, at the place of the original inflammation-seat, a delicate net work, the residue of the connecting and vascular textures of the brain, floating about in a milky or turbid milk-like fluid, in which the fat metamorphosed brain residue is suspended. The textural residue may, however, be the issue of textural (membranous?) incrementation; in which case the inflammation-seat, latterly occupied by a callus, has been desolated, and an encephalic cicatrix is left. If this callus is so

considerate as completely to fill up the inflammation seat, we may then properly speak of an issue of encephalitis in *induration*.

Brain abscess is sometimes a result of encephalitis, and it is characteristic that the contained pus is for the most part in a state of necrosis bordering on putrefaction. The abscess enlarges by an extending breaking down of its walls, so that it either opens externally or into the ventricles. Generally, however, there is formed from the wall of the abscess a callus which surrounds it, of some thickness, within which the pus may undergo cretification.

As causes of encephalitis Rokitansky mentions injuries, and the inflammations in the neighborhood of an extravasate pseudo-plasmen; also foreign bodies and hydatids. But encephalitis is also caused by inward agencies, as overstrained brain activity in marasmus, collateral hyperæmia in embolia, or stopping up of blood vessels from diseased action in them.

In the next place, encephalitis occurs as an extending inflammation, generally ending in abscess with caries and necrosis of the cranial bones, especially the petrous portion of the temporal. Many small abscesses are met with in sepsis, of metastatic character.

It is still very remarkable how comparatively seldom encephalitis is met with in the insane; and we are therefore not in a position to attach to it any importance in this relation.

With regard to the *regressive metamorphose* of the brain texture, nothing further remains to be said than that fat metamorphosis as well as colloid and amyloid degeneration, take place, and they are found particularly common in encephalitis and in textural incrementation of the

neuro-glia, as we have already mentioned. (See Virchow, vol. II, p. 135.) Sometimes we also meet with a sort of ossification of the remains of the nerve cords.—(Rokitansky—Förster—Bamberger.)

PSEUDO-PLASMEN IN THE BRAIN.—Besides carcinoma and tubercle, we may mention *cholesteatoma*, or the pearly tumor of Virchow, which is generally a morbid growth of the pia mater, and most usually on the base of the cranium about the pons Varolii. We have also, but not often, *cysts*.

Carcinoma is met with mostly in the medullary form, in large round knots, either singly or in numbers, especially the melanotic, and is always associated with cancerous growths in other organs. In the brain it usually affects the medullary parts.

Tubercle of the brain is a morbid product of frequent occurrence. It appears in the form of rather large knots, which in the middle are of a yellowish white color and broken, but towards the surface reddish, and set either singly or in numbers between the cortical and the medullary portions. Here and there, after having undergone cheesy metamorphose, they advance to complete breaking up into a soft, purulent-like mass, and form cavities. Brain tubercle mostly affects young persons, laboring under tuberculosis of lymphatic glands.

Of tubercle and carcinoma we may remark that, as morbid formations in the brain, they occur quite as commonly in the sane as in the insane, a fact which is amply illustrated by the specimens in the Pathologico-Anatomical Institute of Vienna.

These diseases may often have been present for a long time without the manifestation of any striking symptoms, and those affected by them frequently die suddenly, and

our first knowledge of the fact is derived from post mortem section. The same remark holds good as to *cisticercus cellulosae*, which are found in the brain, often to the number of 60 or 80, without any antecedent psychical disturbance.

DISEASES OF THE CEREBRAL BLOOD VESSELS.

The vessels of the brain, and particularly the capillaries, are often primarily affected, and the influence of this form of disease upon the brain itself is, for very obvious reasons, most important; yet it has not hitherto received much attention. It is in the small arteries especially that Rokitansky's so called process of superimposition occurs. This process consists in an incrementation of the inner coat of the vessels, which may become so considerable that a formal contraction, and finally a complete occlusion, of their calibre results. The morbid internal thickening may undergo either atheromatose degeneration, or ossification. We find this disease, comparatively, extraordinarily common among the insane; and it is to be wished that a full exposition of the discoveries under this head were made known in a synoptical form.

The cerebral capillaries are often found in a manifestly distended state, which may be either primary or consecutive.

Wedl has observed newly organized textures directly proceeding from the interior of the vascular coats, which would certainly lead to closure of their tubes, with thickening, but which are also, however, met with in widened vessels, and in all probability they have been the cause of the widening in such cases.

In the next place we have to notice a widening of

vessels, without any incrementation of their coats, the result, no doubt, of habitual hyperæmia—Klob has found regular aneurisms in almost all the capillaries of the brain—once in secondary dementia, and twice in acute mania. Secondary vascular widenings are also met with as the result of retraction of the atrophoid brain substance. After protracted intermittent fevers we find, in conjunction with the pigmented tumor of the spleen (and liver,) sometimes, the cortical portion of the brain observably smutty-brown colored; this proceeds from accumulation of pigment corpuscles in the slender, thin capillaries. This accumulation very often induces closure of the brain capillaries, and ruptures of the vessels; and the symptoms manifested during life, as well as the frequently sudden form of death ensuing, stand connected with this pathological condition. From stopped up blood vessels organized textures also proceed, and although no cases of this sort are known to us, yet physicians of asylums who receive many cases from fever districts should keep an eye to the fact.

CONCLUSIONS.

We confess, indeed, that psychiatry receives but trivial positive benefit from the preceding facts. We might regard the pathological discoveries connected with paralytic dementia, as of the greatest weight and consistency; but we must not conceal the fact that this form of mental disease is, alas, a condition wherein therapeutic science has discovered its impotency,—a condition which exhibits to us merely the final result of numerous by-gone morbid processes.

We have ascribed an extraordinary value to cerebral hyperæmia. It is beyond all doubt that every form of insanity, combined with high excitement, shows clear

indications of cerebral hyperæmia, in the great majority of cases, and that most generally the psychical disorder is the result of the cerebral condition which determines the hyperæmia, a condition which, in its incipient development, we are not, with our present state of imperfect information, in a position precisely to indicate.

If the hyperæmia passes off without any permanent morbid result being left, the psychical disorder disappears; but in opposite cases, when, in consequence of the hyperæmia, permanent structural changes and disorganization of the brain result, then the primary form of mental disease moves parallel to the physical process, into the secondary form, which is mostly incurable. In opposition to the concurrent views of Griessenger, Bartolini and Bottex, we must believe our own observations, which have shown us that in both melancholy and dementia, cerebral anæmia is most commonly the associate of œdema. If these forms of insanity pass into fatuous dementia, (secondary idiocy ?) then we find poverty of blood in the brain far more usually than the contrary. Whilst we may in general say that the curable forms of insanity mostly proceed with nutrient disturbances of the brain, without leading to deep disorganizations or textural metamorphoses, we find, on the other hand, in the incurable forms, conditions of disaggregation, or the so-called regressive metamorphose of the textural elements of the brain, or manifest destruction of the whole brain, or of certain important parts, for example, the cortical portion.

THE ABNORMITIES OF THE OTHER ORGANS, AND THEIR RELATIONS TO INSANITY.

1ST. DISEASES OF THE RESPIRATORY ORGANS.—In the outset we must notice the transformation of the thyroid

gland, in the throat, in which, because of the growth of the lobes outwards and backwards, compression of the jugular veins may result, and with this, hindrance to the return current of the venous blood from the brain, from which will proceed hyperæmia of the brain, and its consequences. Formerly much importance was attached to the various diseases of the lungs, yet without any desire to depreciate the value of the leading facts, we cannot help recommending some precaution in the assumption of an immediate causal connection between lung and brain diseases.

Hyperæmia of the lungs may so react on the brain, in the passive form, that an accumulation of blood may take place in it simultaneously with that in the venous heart. We frequently find lung hyperæmia in drunken madness, and a similar condition of the brain.

Lung hypertrophy resulting from some forms of heart defect, is not unfrequent among the insane, and if, in such cases, we ascribe the insanity to the heart disease, then the psychical disorder and the lung hypertrophy are effects of one and the same cause,—effects which have no extended correlation.

Lung emphysema has, as an acute disease, an absolute influence over the brain, by its obstructing the pulmonary circulation, and the consequent stagnation of the venous blood; yet, as a chronic disease, and especially a senile emphysema, in general marasmus and senile atrophy of the brain, stagnation from this cause is seldom observed, probably because of the cöordinate atrophy of the blood mass.

In the marastic insane, and the paralytic insane with early marasmus, this morbid condition constitutes the post mortem topical discovery of the general disease.

Pneumonia is commonly found as the last disease in drunken insanity. Hypostatic pneumonia is the ultimate cause of death in many insane persons, who have long been confined to bed, and in whom the functional power of the heart, and of the respiratory muscles, has been prostrated. Metastatic abscesses are found in the lungs in such cases, associated with sepsis, in consequence of decubitus.

Gangrene of the lungs is a well known frequent morbid condition in patients who have refused food.

It is no other than one of the first (?) symptoms of inanition, and is very commonly associated with stricture of the œsophagus. In the insane asylum of Hesse, 827 autopsies gave 26 cases of lung gangrene, and about one-third per cent. of all the deaths were caused by it.

Tuberculosis of the lungs is, as is well known, a very common disease of the insane. In its relation to the brain, we must give prominence to the fact that the sub-acute forms of tuberculosis with wide spread infiltration, are certainly capable of producing hyperæmia of the brain, by hindrance of the pulmonary circulation; but, as a general rule in tuberculosis, partly through the associated marasmus, and partly through obstruction of respiration, there ensues so rapid a wasting of the blood mass, that the mental disorder manifesting itself in the progress of the tuberculosis, very commonly recedes, on the occurrence of anæmia of the brain (?). This holds true, especially of chronic lung-tuberculosis with phthisis.

We must here also mention *acute tuberculosis of the meninges*, occurring secondarily in lung tuberculosis.

Since no other disease, with exception of some rare hemorrhages of various sorts, tends so rapidly to anæmia, lung tuberculosis will, because of the resulting anæmia

of the brain always play a chief role in the post mortem manifestations of the insane.

Pleuritic exudation operates in like manner, by obstructing the pulmonary circulation, and finally by anæmia, especially in contemporary tuberculosis.

2D. DISEASES OF THE ORGANS OF CIRCULATION.—In insanity with a condition of excitement, we find hypertrophy of the left heart the usual autopsic fact, whilst in the forms of depression, the right side of the heart will often be found affected by hypertrophy (?) with dilatation, and, in like manner, exalted forms of insanity are induced generally by augmented impulsive force of the arterial heart, and depressed forms by obstructions in the venous system. Both forms of hypertrophy, with their various causes and wide extending morbid results, constitute a notable division in the autopsical records of the insane.

That form of *cerebral œdema* which proceeds from heart disease with general dropsy, will also fall under the attention of the pathologist of insanity.

The non-closure of the foramen ovale has, upon anatomical and physiological grounds, as has been repeatedly remarked, not the least influence on the circulation, and quite as little on the brain. According to the autopsical records furnished by Klob, this foramen was found open in 126 out of 300 subjects examined.*

* It might be very desirable that the author had stated the extent of opening remaining, and the age, and condition of life of the individuals examined. Having ourselves never met with an adult heart in which the *foramen ovale* remained patent, and having in a few cases, in which it did not close at birth, found that death took place, under *morbus ceruleus*, in a few days, (in one case, indeed, within two days,) we are disposed to doubt the harmlessness of non-closure.

Valvular diseases are attended with numerous disorders of the circulation. Vegetations on the valves of the left heart usually lead to *embolia* of the cerebral arteries, and its consequences.

The process designated by Rokitansky aggregational enlargement, (thickening ?) of the *aorta*, is found indisputably more common in the insane than in the sane.

3D. DISEASES OF THE LIVER AND SPLEEN. — Liver *atrophy*, in its various forms, is an apparently common post mortem discovery in the insane, and is often associated with heart disease, in chronic cases, (granular liver.)

Rokitansky's red liver-atrophy is worthy of notice : though in its exquisite forms it is extremely rare, it is often met with in minor degrees.

The *fatty liver* is a well known common occurrence in drunkards and tuberculous persons.

Among the diseases of the *spleen* we should mention spleen-tumor in hypochondriasis, and atrophy in marasmus.

4TH. DISEASES OF THE STOMACH AND BOWELS. — Stomach catarrhs are very common in drunkards, and persons laboring under heart disease. The perforating ulcer is occasionally noteworthy as the cause of anæmia.*

Widening of the stomach is met with in persons who have suffered long hunger, or insatiable appetite, and, in consequence, have overfilled the stomach.

We remember seeing a very clever professor of anatomy once demonstrating to his class rupture of the valve in a man who had been hanged. He found an opening just "*the size of a pin hole*," but not a few of the class saw how the pin hole was made. In fact, the point of the pin entered, by force, but the head refused to pass.—*Tr.*

* We presume the author here means the chronic disease preceding perforating ulcer.—*Tr.*

Typhus, as has been already observed, leads to insanity, from the blood poverty which it induces.

Dysentery does not occur in good asylums for the insane more frequently than in other institutions for the sick, and we have repeatedly had opportunities of making convincing observations on the concurrent manifestation of such epidemics, in the Hessian General Hospitals, and insane asylums.

Intestinal tuberculosis is, as tuberculosis in general, common in the insane. Our own observations do not confirm those made by others, on the contractions of the colon.*

5TH. DISEASES OF THE URINO-GENITAL ORGANS. — A thorough investigation of the relation between *uramia* and insanity would be of great value, especially if the attention of physicians in large asylums were bestowed upon the subject, on which some light might be thrown by a sufficient amount of pathologico-chemical observations.

Renal diseases, of all sorts, may counteract the functional integrity of the brain, through their direct influence on the constitution of the blood mass, (dropsy, anæmia, etc.,) and thus lead to insanity. Indeed, I have

* The brevity with which the author disposes of this important subject, as well as the various other abnormities of the abdominal and pelvic viscera, does not indicate that he has bestowed very close attention on this department of pathological anatomy. He stands, in this respect, in striking contrast with Schroeder van der Kolk, whose observations on the pathological condition of the colon, clearly show he was an accurate observer, and that he placed a due value on *extra cerebral* lesions. Leidesdorf, on the contrary, appears to have given his attention almost exclusively to the brain. *Reflex*, or *sympathetic* insanity would seem to have been but little thought of by him.—*Tr.*

a distinct remembrance of cases in which the insanity appeared actually to be linked with the renal disorder. However important may be the influence of sexual disorders on the functions of the brain, the results of pathological anatomy, in this relation, are uncommonly meagre.

Habitual hyperæmia and catarrh of the uterus, hyperæmia of the ovaries and tubes, polypi of the uterus, and the various enlargements of the uterus and the ovaries, are common morbid conditions in nymphomania, but they are no less common among the sane.

In defective development of the ovaries, which is mostly associated with the same condition of the uterus, mental disorders, which appeared at the age of puberty, have been too repeatedly observed.

The simultaneous occurrence of *puerperal mania* with puerperal disorder of the uterus, has not received sufficient attention, because this form of mania usually appears without any manifest disorder of the uterus, and in such cases, perhaps, only under predisposition to insanity, it is linked with the important changes in the female organism, which occur during the normal puerperal process.

6TH. SEPSIS—With metastasis in the most various organs, which so largely proves fatal to the insane, is developed during insanity, but usually not directly depending on it; it occurs in consequence of decubitus, especially in the paralytic. All sorts of morbid processes, conjoined with putrefaction, underlie it.

7TH. SANGUINEOUS EAR TUMORS—OTHAMATOM. — The last affection to be noticed is that above mentioned, which has also improperly been named auricular erysipelas. This disease consists in a separation of the peri-

chondrium from the cartilage of the ear, in consequence of effusion of blood between them, so that the cartilage constitutes the posterior, and the perichondrium the anterior covering of the swelling, the whole of which is outwardly invested by the skin of the ear. The cartilage is partially destroyed, and the morbid process, under formation of a colored texture, heals, leaving behind more or less shrivelling and deformity of the concha.

Sanguineous ear tumor has been observed almost exclusively among the insane, and chiefly in the fatuous and paralytic, but cases have been met with among the sane. It has been believed that it occurs only in the incurable insane, but this view has been set aside by undoubted facts, and there seems now to be a unity of opinion, as to this swelling owing its existence to traumatic causes, whether from bruises and injuries inflicted by the patients themselves, or by others. In connection with this, I remember that places are mentioned, (Stahl, page 488,) where the belief obtained that obstinate lunatics might be broken in and directed by laying hold of their ears. Wherever patients are well looked after and cared for, the ear tumor is met with but very rarely. In the Vienna Asylum, lodging 700 patients, not a case has occurred in the past six years.

THE WILLARD ASYLUM, AND PROVISION FOR THE INSANE.

By an Act of the New York Legislature, passed on the 30th day of April, 1864, the Secretary of the State Medical Society was authorized to investigate the condition of the insane poor in the various poor-houses, alms-houses, insane asylums, and other institutions, where the insane poor are kept, not including, however, such institutions as are now required by law to report to the Legislature of the State.

The law directed the Secretary to arrange a series of questions,* such as in his judgment would be likely to

* The following questions were sent to each county judge :

What is the population of your county house? How many insane are there at present provided for? How many males are capable of labor? How many females are capable of labor? How many males perform out of door work? How many females perform out of door work? What amusement have those who are unable to work? What amusement have females who are unable to work? What number are destructive and tear off their clothing? How many are restrained by chains or hand-cuffs occasionally? How many constantly? What other forms of mechanical restraints are used? What other means are resorted to for controlling and managing the violent insane? Has the poor-house a full supply of water? How many bath tubs are there in it? How often are the insane required to bathe? Is each insane washed, hands and face, daily? Is any arrangement made for cleanliness, ventilation and uniformity of heat in winter? Are any insane confined in basement cells? Are any so confined without the privilege of coming daily into the open air?

Is the building in which the insane are confined of wood or brick? How many stories? What is the height of each story? What is the length and width of each room? What is the size of each window? Are there any rooms without a window opening out of doors?

elicit the greatest amount of information on this subject,

What are the floors made of? Are any of the basement rooms without a floor?

Have you bedsteads in all the rooms? Are the bedsteads of wood or iron? Are they fastened to the floor? Have you double or single beds? How many sleep in one bed? What is the greatest number, in any case, who sleep in one bed? What material do you use for bedding? How many sleep on straw alone, without bedsteads or beds? How often is the straw changed?

What is the diet provided each day? How is it distributed to each? How is the building heated in winter? Are all the rooms heated? Is attention paid to the uniformity of heat by a thermometer? What is the temperature maintained? Are any insane confined in rooms without heat, in the winter?

Are there any accommodations for the various grades of insane? If so, what? Are they all confined in one ward? How many in single rooms or cells? Are the sexes kept entirely separated? Are male attendants employed to care for female insane? Are any attendants beside paupers uniformly and constantly employed in the immediate care of the insane?

What is the actual condition of the rooms and cells occupied by insane, as to cleanliness? What do you think of the atmosphere of the rooms? Did you look for vermin on their persons? Did you observe any? Are any of the pauper insane cared for in private families? Does your county take care of recent cases? What changes of under garments have each of the insane? How many have shoes? How many had neither shoes nor stockings during the winter?

What number of insane is your county house designed to accommodate? What is the greatest number ever there confined? Are the accommodations separate from those of the sane paupers? How many escaped within a year who were not returned? How many were removed by their friends? What provisions are made for medical treatment of the insane? How often are they actually visited? Does each case receive care with reference to its ultimate recovery.

Number; name; age; sex; native; foreign; year of admission; occupation; mild; excitable or paroxysmal; violent; filthy; destructive; confined to house; confined in strong rooms; requires mechanical restraint; been treated in an asylum; died during the year; discharged.

procure them printed, and transmit them to each county judge in the State. It directed the county judge, on the reception thereof, to appoint a competent physician,* a resident of the county, to visit the county poor-house, or institution where the insane poor are kept, and to examine into the condition and treatment of the insane inmates, and to transmit the result of the investigation to the Secretary, who was thereupon directed to condense the information so received and report the same to the Legislature.

*The direction to the physician appointed by the county judge was as follows :

MEDICAL SOCIETY OF THE STATE OF NEW YORK, }
ALBANY, N. Y., May 23, 1864. }

Dr. ————— :

SIR :—In obedience to the appointment made by the judge of your county, in accordance with chapter 418, Session Laws 1864, a copy of which you will find herewith, you are requested at an early day to visit your county poor-house, alms-house or asylum, and make the investigations as indicated in the blanks inclosed. You are requested to give the overseer or superintendent no notice of your appointment or the time of your visit, and upon your arrival to enter at once upon the duties assigned to you. The object is to see every insane inmate, and all the surroundings precisely as they exist in the every day condition of the institution, to discover the evils which exist in the management of the insane poor, and by this well directed effort so to bring them to light as to incite a wise and generous legislation in respect to them, with such actual provision for this unfortunate class of our fellow beings as is in accordance with the teachings of science, and the dictates of an enlightened humanity.

Your services will be a claim upon your county, to be audited by your Board of Supervisors on the voucher of the county judge.

You can retain one set of the blanks for your own personal use, one for the use of the county judge, one for your board of supervisors, and return the remaining two to me, on or before the time specified in section 2d.

Very respectfully yours,

S. D. WILLARD, M. D., *Secretary.*

Dr. Willard, the Secretary of the Medical Society, entered at once upon the service assigned him, and the following January his report was presented to the Legislature. This document bears ample testimony to the earnestness, fidelity, and zeal with which the author executed the duties of his commission; and although he died, prematurely and lamented, before the passage of the law creating a new institution for the insane, a grateful commonwealth has perpetuated his memory and name in the WILLARD Asylum for the Insane.

The leading features of the law, passed by the last Legislature, authorizing the establishment of a State Asylum for the chronic insane, and for the better care of the insane poor, are as follows :

It provides for the appointment, by the Governor, of three Commissioners to select, contract for, and purchase a suitable site for the building,—said site to be first sought for in any property owned by the State, or upon which it has a lien; the construction, by the Commissioners, of suitable asylum buildings, or the modification of buildings already erected and not occupied for other State purposes; the appointment by the Governor of seven trustees, who shall have power to appoint a medical superintendent, one assistant physician, a steward and a matron, and adopt the necessary by-laws for the government of the asylum, and fix the rate per week, not exceeding two dollars, for the board of patients, and, with the approbation of the Governor, designate the counties from which the chronic pauper insane shall be sent to the said asylum.

The chronic pauper insane from the poor-houses of the counties thus designated, shall be sent to the said asylum by the county superintendents of the poor, and

all chronic insane pauper patients who may be discharged, not recovered, from the State Lunatic Asylum at Utica, and who continue a public charge, shall be sent to the asylum for the insane hereby created.

The county judges and superintendents of the poor in every county of the State, except those counties having asylums for the insane, to which they are now authorized to send such insane patients by special legislative enactments, are hereby required to send all indigent or pauper insane coming under their jurisdiction, who shall have been insane less than one year, to the State Lunatic Asylum at Utica.

Seventy-five thousand dollars are hereby appropriated for the purpose of carrying into execution the provisions of this act.

The asylum hereby created shall be known as the Willard Asylum for the Insane.

We have recapitulated the leading features of the law,* that our readers may note in what respects it fails to meet the question of proper provision for the insane. Its insufficiency to this end will be better understood if we consider the nature and extent of the requirements in their medical and economical relations.

It is not our purpose to discuss the causes of insanity. The fact is well established that mental disease increases *pari passu* with increase of population, and, unless checked by prompt medical intervention, its prevailing tendency is to permanent irrecoverable alienation of mind. On the other hand, insanity, in its early stage, responds so favorably to medical treatment that, as shown by hospital statistics, from 70 to 80 per cent. recover. With this knowledge, it needs no argument

* The law is given in full in the JOURNAL for July, 1865, page 127.

to prove that the treatment of acute insanity should take precedence of all other considerations ; for thus, and thus only, can the State be relieved of the burden of chronicity. By such provision, instead of the insane life-long consumer, an affliction to himself, his friends, and society, a producing constituent is restored to the body politic, a comforter and supporter to his family, and an active citizen or christian to the sphere of his former usefulness. Thus we strike at the root of the evil in all its relations, social, sanitary and financial.

An inquiry into the conditions essential to the attainment of a result so desirable suggests the following considerations :

The usefulness of an asylum or hospital for the insane is in a great degree dependent upon its proximity to those who require its care. The greater its facility of access, the less delay there is in placing patients under treatment. The community learn to appreciate the character and merits of an institution in their midst, and are quick to avail themselves of its advantages ; and thus the hospital becomes a curative centre for the region around it.* On the other hand, many cases of insanity, favorable at the outset, lapse into chronicity from the distrust of friends in placing a relative in a distant asylum, of the management of which they know nothing, or against which vague rumor may have prejudiced their minds, or from dread of the expense, hardship and exposure attending a long journey, or from fear of being unable to reach the object of their solicitude in the day of sickness, or be present at the hour of his death.

*We have the authority of Dr. Jarvis for stating that this result has uniformly followed upon the establishment of new asylums in the State of Massachusetts.

In some forms of mental disease, the question of proximity is a question upon the answer of which depends the life or death of the patient. In cases of melancholia and acute mania of rapid exhaustive or typhoid character, the fatigue and exposure consequent upon transportation over long and sometimes difficult routes of travel, will often induce a supplementary prostration, from which the patient never rallies. Frequently has this fact been painfully illustrated in the Asylum at Utica. Indeed, even as we write, (September 4,) a poor woman is dying, who was admitted on the 2d instant in a state of great exhaustion after a tedious land journey, and her death will be justly attributed to this superadded cause of depression. It is unnecessary to point out how all these circumstances are aggravated during the inclement seasons, or in winter, when the routes of travel are blocked up and impeded by snow and ice.

Another argument favoring propinquity may be sought in the difficulties and risks of conveying the violent, fractious or suicidal maniac from distant or inaccessible sections of the State. For the security of one such person, it is no uncommon circumstance for several attendants to accompany him to the asylum, thus entailing an expense of travel which is sometimes equal to the charge for maintenance during the patient's entire period of hospital treatment.

These reasons in favor of proximity we believe to be irrefutable, and to be fully sustained by the opinions of those most conversant with the subject. That clause of the law, therefore, which makes the Asylum at Utica the only State institution for the reception of acute cases

of insanity, simply perpetuates the evils complained of.*

But there are other arguments, and these of a professional character, against constituting the Asylum at Utica an institution for the reception of acute cases solely. To render these intelligible to the general reader a brief sketch of the existing internal economy and requisitions of the Asylum is indispensable.

The State Asylum at Utica contains a population of six hundred patients; the proportion between the two sexes being equal. The division of the sexes is complete. Each department, male and female, is under the immediate direction of its respective medical officer; while the Superintendent's obligations comprise the oversight of both sections, together with various secular duties of administration connected with the house, the farm, the shops and the finances. In addition to these he is often summoned to attend the courts as a witness in cases involving mental incompetency.

In this, and in all similar institutions, in addition to medical resources, there enters an element of great influence in the management of the insane; we refer to what is termed "moral treatment." Although in strict medical acceptation, the latter is not of primary importance, it is, nevertheless, an indispensable coefficient in the attainment of therapeutic effects. Of moral treatment the classification of patients, as practiced in hospitals for the insane, is acknowledged to form the principal constituent. This classification consists mainly in the

*A north and south line projected through Herkimer county divides the State into two equal geographical segments—the western section containing, according to the census of 1860, a population, in round numbers, of one and a half millions, while the eastern section has two and a half millions.

allotment or gradation of patients according with their mental condition. Insanity is not a malady of the thinking faculty, pure and simple ; its manifestations are solely due to physical disorder, and it possesses the same tendencies to recovery or further deterioration which characterize other forms of bodily disease. To meet these various changes, therefore, new classifications are required, and for this purpose all the subdivisions of a department are brought into play. Moreover, this complex analysis and collocation admits but one controlling mind for the department.

And here the thought occurs, very naturally, that one attending physician is inadequate to the discharge of duties so onerous. How can one medical officer, however capable and conscientious, acquire that intimate knowledge of the various and varying mental and physical symptoms of three hundred patients, which is essential to the proper management of each individual case ? How can he daily examine and prescribe for them, and at the same time keep full clinical records of each, from its reception to its discharge ; conduct the voluminous correspondence with the friends of patients, and attend to the multifarious minor affairs connected with his office ? Let us suppose that the attending physician devotes three minutes to each patient, and on this basis of calculation fifteen hours will be necessary to make one visit through his department. It may be urged that every patient does not require so long a visit as three minutes ; that for some a glance may suffice. This is, to some extent true ; but, on the other hand, in many a longer interview is demanded, and the law of the State, as well as that of necessity, makes a daily visit to each patient obligatory. Thirty per centum would be an approximate

estimate for the acute or recent cases under treatment at Utica. These "favorable" cases receive the greater share of the physician's solicitude and care. Of the remainder, belonging to the class of chronic insane, perhaps twenty per cent. may be under treatment, but for all frequent medical inspection is necessary.

We must frankly admit that under the existing organization, physicians to asylums cannot devote so large a proportion of their time as that above specified to personal association with their patients, neither should it be demanded of them. It is well known that among the various descriptions of medical practice, none is so exhausting to mind and body as attendance upon the insane. In England it has been demonstrated by experience that medical officers break down after fifteen or twenty years of asylum life, and there is in that country, we believe, an annuity fund for this disabled class.

Having thus shown by the numerical method that the proper performance of the medical office, under the present system, is so difficult, the inference is obvious: hurried and routine practice must, to a large extent, usurp the careful and deliberate examination which is the sacred and inalienable right of each individual case; and thus, by rendering it impossible for the medical staff to perform the duties required of them, the provision of the law making the Utica Asylum the sole State institution for the reception of all acute cases will but aggravate existing evils, and prove prejudicial to the interests of that class of the insane.

The law not only constitutes the asylum at Utica the sole State institution for acute cases, but it ordains the Willard Asylum as the only State receptacle for chronic insane paupers. For the chronic, as well as for the acute

insane; for the poor, no less than for the rich, proper provision and treatment must include every application suggested by art and experience by which recovery may be promoted or suffering alleviated. There is a popular, and, in some instances, we fear, a professional error, which regards custodial provision as the end of treatment with the chronic insane. Such a presumption in the case of other chronic maladies would be deemed preposterous. In the chronic as well as in the acute forms of insanity, the employment of active medication proves most advantageous. A distinguished psychopathist, well known both for his learning and his humane efforts in behalf of the insane, writing upon the therapeutics of insanity, remarks: "It is acknowledged that in acute bodily diseases the most active and powerful means must be employed, whereas, in psychopathy, when there is *high nervous excitement*, it is advisable to *abstain from active medication*. In mild bodily maladies, mild means may be resorted to; *in similar states of mental disease, the psychopathist must often bring on the field his pharmaceutical reserve*. Dementia, for instance frequently requires alteratives, tonics and stimulants." The same writer says: "We believe it is a great error to say that chronic cases and those of dementia should be abandoned to the efforts of nature. It is true that she cures exceptionally in these cases, but not generally, else there would be fewer incurables." Thus it appears that the treatment of chronic mental disease is the peculiar province of medical science, and that its successful practice demands the highest qualities of the physician and the widest range of the *materia medica*. The occult conditions of disease are to be investigated; recurrent paroxysms of maniacal excitement are to be warded off or subdued;

and sleeplessness, the frequent derangements of the primæ viæ, anæmia and debility, and various intercurrent maladies brought under appropriate treatment. To this end tonics, alteratives and stimulants, cathartics and anodynes must, in turn, be resorted to, according to the particular requirements of each case.

Hardly second in importance to the medical is the dietetic treatment of the insane. No fact is better understood by the medical profession than that diseases of the present epoch are asthenic in character, *i. e.*, that they tend to debility. Especially is this true of the neuroses, (the affections having their seat in the nervous system,) of which insanity is the culminating expression. Insanity is, preëminently, a disease of depression of the vital forces, of debility, and of defective nutrition; and the dietary of this asylum is based upon the knowledge that the insane require food more highly nutritious and in larger allowance and greater variety than is essential in other forms of bodily disease. Where these conditions are neglected the insane become irritable, morose, obstinate, destructive; intercurrent maladies are frequent, and paroxysms of excitement recur oftener and are of longer duration.* In England, when the insane poor

* The insane cannot live on low diet, and while they continue to exist their lives are rendered wretched by it, owing to the irritability which accompanies mental disease. The assimilating functions in chronic insanity are sluggish and imperfect, and a dietary upon which sane people would retain good health becomes in them the fruitful source of dysentery and other forms of fatal disease. Pinel has left an instructive lesson upon the fatal results of the parsimony which existed in the Bicêtre in the year four. The diet in the Bicêtre, under the Constituent Assembly, was fixed at a kilogramme of bread daily. In the fourth year of the Republic, it was reduced to seven hectogrammes and a half. "And," says Pinel, "I have seen many

were under the surveillance of poor-law commissioners, and subjected to the poor-house regimen and policy, they became so irritable, violent and destructive, that the simple matter of damage alone far outweighed the additional expense of a generous dietary. We doubt not that the receptacles for the insane attached to the poor-houses of this State would bear testimony to a similar experience.

Asylums for the insane require not only a wider range of medical and moral treatment and a more liberal dietary than hospitals for general diseases, but they call for a peculiar style of architecture, possessing, at the same time, sufficient strength of construction to resist the efforts of the violent, and those facilities for light, ventilation and comfort which are the essentials of a sana-

convalescent patients relapse into a state of fury, crying that they were dying of hunger. The sad progress of misery was still more marked in its subsequent effects. In two months the number of deaths in the asylum was twenty-nine; while in the whole year two, it was only twenty-seven. In the Salpêtrière, the consequences were still more deplorable; a mortality of fifty-six having occurred in that hospital in the winter of the year four, from dysentery, brought on by insufficient diet."

In Dr. Thurnam's work on the statistics of the insane, page 95, is the following valuable testimony as to the effects of diet upon the insane :

"The seven asylums may be fairly divided into two groups, in one of which the diet is, or was at the time to which the table refers, considerably above, and in the other considerably below, the average diet of the county asylums as a class. The difference in the amount of the diet in the two groups, is in the first group, as regards solid food, the diet was 50 per cent. better than that in the second. In the relative amount of solid food, considered separately, the difference amounted to 130 per cent. In the three asylums with the more liberal diet, we find that the recoveries averaged 43.7 per cent., and that the mean mortality was 9.35 per cent.; whilst in the four institutions, in which

torium. From the low vital energy and sluggish circulation of the insane, and their propensities to denudation, (the result of restlessness or delusion,) a high state of temperature must be constantly maintained in the wards. The contaminations arising from vitiated pungent secretions and from filthy patients in large aggregations, must be dissipated by artificial means of ventilation. The damages to clothing or furniture occasioned by destructive or excited patients need constant reparation. Trained attendants are demanded in a larger ratio than the claims of ordinary diseases make necessary. Means of diversion, useful occupations and amusements must be provided. The latter, although they act indirectly, are among the most important remedial agents in the treatment of the insane.

That these requirements involve a heavy expenditure in the maintenance of the insane cannot be denied. But in discussing questions of economy, it is important to

the diet was less liberal and nutritious, the recoveries only averaged 36.75 per cent., and the mean mortality was as high as 14.54 per cent."

A more recent example is afforded in the Thirty-ninth Report of the Stafford Lunatic Asylum, just published. The Commissioners in Lunacy, who visited this asylum last year, report that an epidemic of the mucus membrane of the bowels had prevailed, which had proved fatal in twelve cases. They attributed much of this illness to the low state of the health of the inmates, and the poor and insipid soup which formed the dietary on three days of the week. They recommended meat to be substituted for this broth. In the report of the Visitors, signed by their Chairman, the Earl of Talbot, it is stated: "Acting upon the recommendation of the Commissioners in Lunacy, and well aware of the exhausting nature of insanity, we have increased the dietary scale; and the amount of animal food now supplied weekly, namely, thirty ounces of meat cooked, and free from bone, has proved of service in maintaining the health of the patients." —*Dr. Bucknill, Journal of Mental Science, Vol. IV., page 470.*

distinguish between a wise, judicious liberality which secures and a vicious parsimony which defeats the object to be attained. The first effort of the State should be directed towards the cure of its insane, and for this purpose every asylum should possess the necessary prerequisites. The magnitude of the returns, both financial and curative, to the community by institutions thus endowed, are set forth by the Trustees of the Massachusetts Hospital, at Worcester, in the following retrospect of their operations during thirty years :

The hospital has received into its wards, and taken the care of, six thousand six hundred and sixty-three insane persons. Of these, it has given three thousand one hundred and thirty-one back to their homes and the world, to usefulness and the common enjoyments of their families, society, and to the usual responsibilities of citizenship.

Of the thirty-five hundred and thirty-two who were not restored to health, twelve hundred have been improved, their violence has been subdued, their excitability calmed, their pains assuaged, and their delusions controlled, in such a measure, that they could live at their homes, be comfortable in their families and neighborhoods, and partake of some, or even many, of the blessings of society. * * *

According to the life-tables, these three thousand one hundred and thirty-one men and women lived or will live an aggregate of 84,886 years after they regained their health, and 82,090 of these were working and self-sustaining years, before they arrived at the period of dependence in old age. Making, however, some deduction for those that would have recovered by other means if the hospital had not existed, and also for the periodical cases whose years of health were cut off by every succeeding attack, yet both of these deductions will not materially diminish the total sum of 84,886 years of usefulness and enjoyment and the 82,090 years of labor and self-sustenance, that have been given back to these patients, and through them to society and to the Commonwealth, by the labors and influence of the hospital.

It must be farther considered, that insanity, if not removed, is a life-long enduring disease, and although, with its causes and conditions, it shortens human life, it does not destroy men at once. Mr.

Le Cappelain, of London, calculated the value of life to the permanently insane at the several ages. Taking his tables and the common tables of the expectation of life of the sane, it is easy to see the comparative chances of living in mental health and mental disorder.

Expectation or probable Duration of Life.

AGE.	SANE.	INSANE.		
		Males.	Females.	Average both Sexes.
20,	36.32	21.31	28.66	24.99
30,	34.54	20.64	26.33	23.46
40,	30.48	17.65	21.53	19.59
50,	24.89	13.53	17.67	15.60
60,	18.77	11.91	12.51	12.21

At these rates, the three thousand one hundred and thirty-one who were restored, would have lived 54,911 years, if their malady had not been removed, through all of which the State, towns and people must have cared for and supported them.

The hospital then has done this double work. It has taken away a burden and given back a support. It has cut off these 54,911 years of insanity, which were or would have been a heavy tax upon the sympathies and a draft upon the resources of the community, and given back in their stead, as many and fifty per cent. more years of aid and labor to the body politic, and the cost of this great boon to the Commonwealth has been merely the expense of supporting and caring for these three thousand one hundred and thirty-one, through an average of somewhat less than six months for each one.

There is, perhaps, no subject connected with provision for the insane, upon which the verdict of the profession has been more unanimous than their condemnation of asylums for incurables. If, as we have said, the chief source of chronic lunacy is the want of asylums for cure, it is obvious that we but palliate the evil by establishing institutions for the so-called incurable. We build "great resevoirs of lunacy and solicit the stream of lunatics to flow into them. We find, after twenty year that ours, resevoirs, new and old, are full to over-

flowing, but that there is no sign of abatement in the flow of the stream of lunacy."

The objections heretofore urged against the too great expansion of asylums apply with special force to vast establishments for the incurable. "The community becomes unwieldy, the cares are beyond the capacities of the medical officers as respects treatment, recent cases are lost sight of in the mass, the patients are treated in groups and classes, an unhealthy moral atmosphere is created—a sort of mental epidemic induced where delusion and debility and extravagance are propagated from individual to individual, and the intellect is dwarfed and enfeebled by monotony, routine and subjection." And when to these evils we superadd the double stigma of "*pauperism*" and "*incurability*," all hope is extinguished in the breast of the patient, his self-respect is impaired, and his irretrievable degeneration secured. Truly over the gateway to such institutions should Dante's inscription to the portals of hell be written :

"All hope abandon—ye who enter here !"

All are aware of the powerful influence of hope in recovery from disease, and the disastrous consequences of its opposite, despair. In no class of maladies are the beneficial effects of desire joined to the expectation of recovery more manifest than in insanity. Deprived of "auspicious Hope," branded with "*incurability*"* under the two-fold burden of disease and despair, the sufferer from chronic lunacy drags through his miserable life.

* The medical solecism of pronouncing any patient incurable, we deem hardly worthy of notice ; for, as the eminent Dr. Kirkbride remarks, this is a condition which can be predicated by Omniscience alone.

And as if this were not enough we affix the stigma—for so it is regarded by our people, of *pauperism*, forgetting the fact that, generally, pauperism is the effect and not the cause of insanity. Pauperism, the result of vagrancy and vice, finds few representatives among the insane. The great majority of patients in asylums come from the industrial, producing classes. In various spheres of usefulness they have contributed their proportion to the prosperity and advancement of the State. Rendered unserviceable by no fault of their own, stricken in God's providence by disease, they are not paupers in the true sense of the word, but their cure and maintenance is the payment of a debt due from society.

There is another objection against the establishment of institutions for pauper incurables. From natural affection, as well as to avoid the implied disgrace of being on the roll of pauper lunatics, patients would be removed from such institutions and provided for in their respective families. There is no legal enactment to forbid such a procedure, nor, from the nature of the case, can there be. The farmer or mechanic in moderate circumstances, whose whole time is necessarily occupied in the support of his family, is unable to watch his insane wife, son or daughter. The lunatic inmate of the family may have a propensity to roam, or to suicide, or homicide, or to violence and destruction, or be negligent and filthy in his habits. To promote the comfort and security of the domestic circle, some attic room or outbuilding is made secure and dark for the permanent abode of the unhappy wretch, and chains, cages and cruelty eventually usurp the place of that tender care which it is the object of the law to realize. Or, in accordance with the law of sympathy, so potent in its operations on our nature, other

members of the family become deranged by constant intercourse with the insane, and thus augment the statistics of disease; or the family itself, by the additional burden and expense of its insane inmate, is dragged down into pauperism, and then instead of one member to support, the county becomes the almoner to a demoralized, impoverished family. Thus the law, by elements inherent to itself, defeats its own benevolent intentions.

Having thus briefly noticed some of the principles involved in the proper management of the insane, and their incompatibility with the provisions of the law, the question naturally arises, how can these incongruities be overcome and the administration of the insane rendered conformable alike to the demands of science, humanity and economy. Various European methods, evolved during the last decade, for the solution of this problem—the public asylum system, agricultural lunatic colonies, the familial or free-air and family-life system, all have their advocates and opponents, their advantages and objections. How far a wise eclecticism might combine the meritorious features of these different methods into one harmonious design, experience alone can determine.

But however this may be, the first requisite of the State is additional hospital accommodation. The State should be apportioned into three sections equal in population, and the insane of the central section sent to Utica. Two hospitals for the treatment of acute, paroxysmal or violent cases, should be built—one in the eastern and one in the western section, whose sole architectural requirement should be perfect adaptability to the wants of hospital practice. Separate buildings, less expensive and of simpler construction than the hospital, and disconnected with it, should be provided for the quiet, the

filthy demented and paralytics. Buildings of a suitable form should also be erected for the treatment of epileptics. Each hospital should have a farm attached to it, of from three to five hundred acres—to the cultivation of which the labor of patients should be particularly directed, both from economical considerations* and the medical benefits to the insane of out-door life and occupation. Upon the farm there should be cottages for the employés engaged in the various agricultural and industrial departments of the institution. With these employés the orderly, industrious chronic or the convalescent acute patient might reside. Such an arrangement would permit a certain degree of family-life and a larger liberty to this class than are compatible with the organization of the hospital proper. It might be found practicable, after due consideration, to withdraw a certain proportion of patients from the hospital and domicil them in cottages which could, in great measure, be constructed at small expense by the labor of patients themselves. That some classes of the insane may be thus provided for, with advantage to themselves and at comparatively small outlay, has been fully demonstrated in asylums in England and on the continent. It should, however, be remembered that, in the judgment of those European physicians who have had most practical experience and whose medical and administrative capacities are of the

*A very mistaken view prevails as to the productiveness of work performed by the insane. Some of the best authorities estimate the labor of three insane men as equivalent to that of one sane person; while others place the ratio as high as five to one. On this basis of calculation, bearing in mind also that the insane are suffering from bodily disease, and that there is, in reality, no such condition with them as "robust bodily health," the absurdity as well the cruelty of any attempt to make the insane self-supporting, becomes apparent.

highest order, although this arrangement is attended by the happiest results in certain instances, it has thus far been found applicable to a relatively small proportion only of the insane. Still, as an appendage to the hospital, it would add greatly to the facilities of classification. Its capability of extension, so as to embrace any very large number of patients, observation and experiment can alone determine.

We have alluded to the healthful occupations of the farm as an adjuvant to medical treatment and a source of income to the institution. To the majority of male patients, however, tillage of the soil would prove too exhausting; moreover, for several months in the year the labors of the husbandman are suspended. Other means of employment, therefore, must be provided, and work-shops instituted in which some of the simpler trades may be carried on and articles manufactured. It is unnecessary further to specify the details of such an institution as that here proposed.

The main object of this paper has been to call the attention of the general public to some of the fundamental principles upon which proper provision for the insane is based, and to show, inferentially, that the law fails to meet the necessities of the State. Having full confidence in the wisdom of our law-givers, and the benevolent spirit of our people, our reflections are dictated by no desire to cavil, but from the belief that a knowledge of the facts here presented is essential to wise and comprehensive legislative action.

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It is two years since the final number of the *Journal of Psychological Medicine* was published, and the entire field of periodical literature represented by our own journal in this country left, in Great Britain, to the *Journal of Mental Science*. This journal, under the very able editorship of Dr. Bucknill always ranking among the first of its class, now comes to us enlarged and increased in value to meet its greater responsibilities, and we doubt not its greater patronage. Its old form and appearance are mainly preserved, and we shall now, by a brief abstract of its contents for the year up to the present time, enable our readers to judge of its intrinsic qualities under the new management.

The opening article is by Dr. Robertson, "*On the Several Means of Providing for the Yearly Increase of Pauper Lunatics*," and is very able and interesting.

"The number of lunatics under care and treatment in the public asylums of England and Wales continues yearly to increase. On the 1st of January, 1849, there were 7,629 patients in the public asylums. On the 1st of January, 1854, this number rose to 14,575; on the 1st of January, 1859, to 17,836; and on the 1st of January, 1864, to 23,830."

The decennial period, 1854-63, a fairer basis for comparison, shows a less, though still a large, rate of increase. This increase at the present time may be stated, in round numbers, at 1,000 yearly, on a mean population of 22,807—the yearly admissions being 7,000, the discharges 3,800, and the deaths 2,200. But the Commissioners in Lunacy, after a careful study of the subject, have arrived at the conclusion that these numbers must still continue to increase with each succeeding year. What, then, are the available means for providing for this yearly increasing number of pauper lunatics? Dr. R. describes them as: 1. Licensed lunatic wards in work-houses. 2. Single patients; the insane in private dwellings. 3. Agricultural lunatic colonies. 4. Extension of the public asylum system, by the enlargement of existing buildings, by the erection of detached blocks, and also of asylum cottages on the county asylum estate.

The number of lunatics in work-houses is steadily increasing. In 1857 there were 6,800; in 1861, 8,803; and in 1863, 9,710 lunatics and idiots confined in an irregular and very unsatisfactory condition in the union-houses of England and Wales. What this condition, described as “irregular and very unsatisfactory,” really is, we may find exemplified in our own poor-houses; and the same arguments which have been so often reiterated in this journal against the association and treatment of insane patients with paupers, are cited at length by Dr. Robertson from the Lunacy Commissioners’ Report, and from an article by Dr. Bucknill in the *Journal of Mental Science* for May, 1865. Nor have recent legislative enactments, directed towards improving the condition of the insane poor in work-houses, been of much avail.

There is, as Dr. R. well says, "an inherent unfitness of the guardians of the poor, or their medical officers, to deal wisely or well in the care of the insane."

"On January 1st, 1864, there were in England and Wales 1,018 pauper lunatics (including idiots,) boarding in private dwellings, and 5,523 living with relatives, who were in receipt of relief from the parish as payment for their maintenance; making a total of 6,541 insane paupers lodging in private dwellings."

Of 38,000, the whole number of pauper idiots and lunatics in England and Wales, 56 per cent. are in asylums, 26 per cent. in work-houses, and 18 per cent. are boarded out as single patients. In Scotland, 68 per cent. of the same class—the total number of which was 5,283 on the 1st of January, 1863—were in asylums, and 32 per cent. as single patients in private houses.

In England, the insane poor in private dwellings are visited quarterly and reported on by the union surgeon, but not much is thus added to the little or nothing known of them. Their condition is very unsatisfactory, and in almost every one of the annual reports of the Commissioners, cases of neglect and ill treatment are recorded. Dr. R. knows of no remedy for the evil short of removing this class entirely from the charge of the guardians of the poor, and placing them under the control of the visiting justices of the county asylum. He says: "Our system as regards 56 per cent. of the insane poor is a triumph of science and humanity. The paupers in the county asylum are already cared for as the sick are not. The other 44 per cent. of the insane poor—of whom 26 per cent. are in work-houses and 18 per cent. in private dwellings—are, on the other hand, as the official reports of the Commissioners show, in a miserable plight."

The subject of agricultural colonies for the insane is dismissed with a few words. Dr. R. deems it "utterly impracticable—and if practicable, not very wise—to found such colonies in England."

But the public asylum system may be extended in three forms: 1. By the enlargement of the present buildings. 2. By the erection of detached blocks in the vicinity of the asylum. 3. By the erection of cottage asylums on the estate.

Dr. R. is by no means disposed to join in the disfavor with which large asylums on the usual plan are now generally regarded. Wherever the present buildings can be, by additions and alterations, increased at an expense of not more than \$250 per bed, this should be done, to the limit, at least, of 1,000 patients. The obvious arguments in favor of large asylums—such as the better classification to be obtained, the advantage of purchasing supplies at wholesale, etc.,—are well stated, but we fear must yield before the general experience, which, in this country as well as in Europe, is decidedly adverse to these mammoth institutions.

The addition of detached blocks to the present asylums is favorably regarded. "They afford a bright, quiet home to the feeble and demented—removed as they are from the bustle and discipline of the main building."

So far as these blocks are merely new buildings added to the present asylums, and like them in every respect, they are, of course, only an extension of the present asylum system, at a greater cost of construction and operation than by the common mode of enlargement. But built as they may be, in a much simpler manner and at a far less cost than the parent asylum, there seems reason to believe they will afford a most practicable and

appropriate means of providing for a large class of the insane.

The cottage asylum system, on the other hand, essentially changes the condition of the patient. It returns him again to that family life from which disease had alienated him. A large hospital is erected for certain classes of patients, and surrounding or in connection with the hospital are small buildings for containing families, in which other classes of the insane live as members; all members of the community being equally under the direction of a central medical staff. "The cottage asylums thus stand midway," says Dr. R., "between the asylum wards and the private dwellings, and combine, to my judgment, the advantages of both."

"*Vital Statistics and Observations on the first Thousand Female Patients admitted into the Somerset County Lunatic Asylum*," is the title of a paper by R. Boyd, M. D., Edin., F. R. C. P. We learn that the results in one thousand female admissions are 38.8 per cent. recovered, 9.2 per cent. improved, 3.9 per cent. unimproved, 25.8 per cent. died, and 22.3 per cent. remaining under treatment. And this is about all, to which any rational interest can be attached, that we can gather from some two dozen pages. As to the number of these thousand whose tongues were clean or white, red, raw, loaded, furred, brown, flaccid, paralyzed or not stated, it does not seem to us of the slightest consequence to know. The frequency of the pulse in the thousand females when admitted varied, it appears, from 58 to 156 beats to the minute. Now twelve different classes of less variation may readily be made of these patients, and a certain number will belong to each. But why not thirteen different classes, or five hundred?

The truth is, a lunatic's pulse beating 100 to the minute at the time of his admission to a public asylum is a fact infinitely complex, and absolutely without value to the finite mind. If the instance be multiplied by one thousand, or one billion, the amount of our knowledge is still infinitesimal. And if we compare this fact with others, such as the sex, age, weight, civil condition, and facial expression of the patient, all is even then in vain. From nothing nothing comes. The paper of Dr. Boyd is the most elaborate burlesque of statistical forms that we have ever been called upon to peruse.

An article on "*English Patients in Foreign Asylums*," has for its theme the late removal of a Roman Catholic *religieuse*, suffering under acute mania, from England to an asylum at Bruges, Belgium. There seems to have been no reason to suppose, at any time, either that the girl was not insane, or that she was removed from improper motives. All the sensation articles in the newspapers, the correspondence of the Protestant Alliance with the Home and Foreign Offices, and numerous other symptoms of public anxiety, had their real origin in that distrust of Popery which is little less fixed in the British mind now than in the days of Titus Oates and Dangerfield. It appears, however, that the removal of insane patients abroad is illegal, and Sir George Grey has intimated to the lady superintendent of the hospital from which the patient was sent, that although he does not propose to institute legal proceedings in the present instance, it is his duty to warn her not to do so any more.

A series of "*Clinical Notes on Chronic Hydrocephalus in the Adult*," is contributed by Samuel Wilks, M. D., London, Assistant Physician to Grey's Hospital. "They are published," he says, "principally to elicit from those

having a large experience in the treatment of mental disorders, the frequency of chronic hydrocephalus as a cause of permanent weakness of mind and body." The cases referred to by Dr. Wilks are chiefly of interest in a medico-legal point of view. A man aged fifty, of feeble intellect, and who had been hydrocephalic from childhood, died comatose at the end of fourteen hours during which that condition had gradually developed from a state of stupidity. On post-mortem examination the body and brain were found healthy, but the ventricles of the latter were enormously distended with half a pint of fluid. The medical men at first declared this sufficient to account for the symptoms and death, but afterward hesitated in expressing a decided opinion to that effect. Their theory was, that some increase of the serum had suddenly occurred, and thus the apoplectic condition was produced. But Dr. W. believes that the death was chiefly due to the impairment of the brain substance, and not to the pressure of fluid alone. "Why death should at last ensue from a cause which has been so long persistent," he says, "creates a difficulty which occurs in many other chronic diseases. But with this condition of the brain, the powers of the body as well as the mind are very low, and a trifling cause may bring the whole machinery to a stop." Dr. W. illustrates his opinion, which seems to us a most sensible and valuable one, by three other cases, and closes by inviting the attention of medical men in charge of idiot and lunatic asylums to the subject.

"*Blood Cysts situated within the Arachnoid Cavity in cases of General Paralysis of the Insane*," is the title of a paper by John W. Ogle, M. D., etc. This clinical history of two cases in which the rare phenomena of cysts

containing blood within the arachnoid cavity was found after death, is of much interest. Calmeil notices five instances in which lesions of this kind were observed, in cases of what he terms diffuse chronic peri-encephalitis. The only other case which has come to the writer's notice is described in the "Grey's Hospital Catalogue," and was that of a general paralytic. Dr. Ogle supposes that such cysts would now be considered as generally the result of changes in blood extravasated, as the result of injury or otherwise, within the so-called cavity of the arachnoid. But he does not discuss their origin or nature in the present article.

Stanley Haynes, M. D., Assistant Physician to the Royal Edinburgh Asylum, contributes some cases from the records of that institution, which he terms "*Clinical Cases, illustrative of Moral Imbecility and Insanity.*" Nine of these are cases of females, varying from 17 to 28 years of age, and in all the mental disorder and defect were most strongly marked in the moral manifestations. All were exceedingly passionate, and at times violent and destructive. Some were especially given to lying, theft, profanity and obscenity; others threatened suicide and homicide. There was also that liability to sudden and extreme change in the feelings and behavior which we have all recognized as characteristic of this class. But it should seem that Dr. Haynes has not reported these cases with that care and discrimination which they deserve. We must suppose, of course, that the patients were all really insane, yet the data for such a conclusion are not clearly set forth. One, for instance, "was a notorious jail-bird, and a consummate impostor, deceiving gentlemen, inspectors of the poor, police officers, and others with false and carefully got up as well as plausibly told

stories of her life, etc.” She could reason correctly, and when she attempted to control herself, could behave with perfect propriety. There is not a word, indeed, to indicate her insanity, unless it be the statement that “she showed a lamentable want of moral power.” Some of the cases are, however, described as weak-minded, some as hysterical, others as masturbators, drunken, and diseased in body. So that, in fact, we have intellectual and physical as well as moral symptoms of insanity. All these are combined in the first case detailed, which, notwithstanding, is termed one of “pure moral congenital imbecility.” In most of the five cases of male patients there is the same want of any evidence to warrant a verdict of insanity. The depravity is extreme, it is true, and apparently quite hopeless of remedy. But this is not uncommon with criminals, and every particular in the history of these patients may be paralleled in that of the common inmates of our prisons and reformatories. It seems to us that the chief aim in such cases, should be to describe the symptoms which are pathognomonic of insanity. We are aware that an exact idea of these can not always be conveyed in terms, but it ought not the less to be attempted.

That an important place is given to the review department in journals representing any specialty in science, we regard as no small sign of the vigor and ability of their management. A second edition of Bain “*On the Senses and Intellect*,” having been published, Dr. Maudsley takes occasion to offer an extended criticism and analysis of that work. His general estimate of it nearly agrees with that of Herbert Spencer, who regards it as essentially tentative and transitional, and believes that the true method of the study of mind is, to follow out

its development in children and the animal creation. Dr. M. also thinks that observation of mental phenomena in the idiotic and insane, may furnish data for the establishment of true principles in psychology.

There is also noticed a work, by J. Barnard Davis, M. D., etc. and John Thurnam, M. D., etc. entitled, "*Crania Britannica. Delineations and Descriptions of the skulls of the Aboriginal and Early Inhabitants of the British Islands, together with notices of their other Remains.*" The reviewer says :

Such works reflect credit, not only on their authors, but also on their native country. The original conception of the work appears to have been borrowed from Prof. Morton's celebrated "*Crania Americana.*" It does not consist in dry, anatomical details of structure, but the study of the crania is used to, as it were, resuscitate the races to which they belonged, and to bring before us the aboriginal and immigrant races of Great Britain and Ireland in connection with their whole physical conformation, their languages, arts, religion, and ethnological relations. Thus a considerable portion of the decade before us is taken up with a most able sketch of the historical ethnology of Britain, embracing an account of the mythology and religious rites of the Britons and other Celts, of their language and letters, etc., from the pen of Dr. Thurnam; and this chapter is followed by another, an "*Ethnographical Sketch of the Successive Populations of the British Islands.*"

The number for April opens with a learned and excellent paper on "*The Physiology of Idiocy.*" To all who are interested in the subject of Idiocy, or in the study of mental phenomena in their simplest forms, this article will be found well worth an attentive perusal. There seems no good reason for hope that the study of any single case of idiocy will be fruitful of results. The wild boy of Hanover, and the *sauvage d'Aveyron*, from whose progress from a state of nature so much was hoped, yielded nothing as the reward of many years' patient

teaching and observation. But the hints toward general laws in mental development which an extended knowledge of idiocy must suggest may be of great value. Such appears to be the opinion of the writer of this article, and we again commend his very able contribution to the notice of our readers.

“Neuropathy, or Vaso-Motor Therapeutics: a New Method of treating disease through the agency of the Nervous System,” is the title of essay by Dr. John Chapman, in which it is claimed that the mode of acting upon the circulation of the blood by cold and heat applied along the spine is the basis of an improved and almost exclusive system of medicine. The rationale of this new mode is as follows: Cold acting upon the sympathetic nerve-centres, lessens the nervous currents in the vaso-motor branches which emerge from them, thereby relaxing the arteries which these nerves supply, and enabling the blood to enter them in greater volume and with greater rapidity than before.

A converse effect is, of course, produced by the application of heat. The nervous current passes with increased power, the arteries are contracted, and the supply of blood to the part is lessened. Now admit the theory that upon the greater or less supply of blood to any given organ or region depends the activity or inactivity of its functions, and that it is the excessive slowness, rapidity or irregularity of these functions which constitutes disease, and the explanation is complete. Dr. Chapman details his experience of the new mode in several of the principal forms of disease, and, we need hardly say, he has met with the highest success. In concluding, he refers to the “immense therapeutical aid” which his method will confer in the treatment of cerebro-mental affections, and

promises to discuss this part of his subject in a succeeding number.

Dr. Daniel Hack Tuke is the author of an article on "*Artificial Insanity, chiefly in relation to Mental Pathology*," which is concluded in the number for July. We shall consider the two papers together in a brief abstract. The fundamental thought of Dr. Tuke is, "that to produce a disease artificially, and to have it under our control, is an important means of studying its nature;" and this advantage in respect to mental disorder, he deems that we have in that form of nervous sleep best known as hypnotism, and which may be considered an artificial insanity. It is unfortunate that the source of the power by which this condition is induced is yet uncertain. According to one theory, that of Cuvier, it is in the operator, and there is a real effect, apart from the imagination of the subject, and arising in some communication between the nervous systems of the two persons. But the opinion of Mr. Braid, that "the phenomena are induced solely by an impression made on the nervous centres by the physical and psychical condition of the patient, irrespective of any agency proceeding from, or excited into action by another," is that more generally accepted. There is no doubt, however, that originate as it may this condition of mind is clearly analogous to delusional insanity. In the latter disease the delusion is indeed generally shaped by the dominant feeling or passion of the subject, but not seldom by some impressive external fact, such as a political or religious crisis might afford. Here, then, we should have a precise analogy with the suggestion of an operator to his subject. "And how," asks Dr. Tuke, "could we define these induced states of the mind more correctly or more forcibly than in the very

terms which Esquirol employs to define those insane sensations and fixed ideas which seem to me so analogous, if not identical, and from which analogy or identity I think something is to be learnt? 'A person,' says Esquirol, 'labors under a hallucination, or is a visionary, when he has a thorough conviction of the perception of a sensation, when no external object suited to excite this sensation has impressed the senses.' " The writer continues :

The marvellous effects of sympathy—mental contagion—are, perhaps, nowhere better witnessed than when a considerable number are placed in a condition of hypnotic sensitiveness to suggestion, and are all inoculated with the same idea. In this state we see the counterpart of the epidemic mental diseases of the middle and other ages, and obtain an insight into the condition of the nervous system which ought to serve us a good purpose when investigating them historically, or when meeting them face to face.

Again, ecstatic madness or maniacal ecstacy often finds a remarkable illustration in the temporary condition induced by hypnotic means. In both, the individual may be more or less incoherent, and in both he may forget what occurred when he was affected.

These analogies must be admitted to be real, and should no doubt lead us to hope, with Dr. Tuke, that we may derive some valuable hints as to the pathology of insanity from a consideration of the disease under its artificial and evanescent form. And of these hints that which seems to him of the greatest interest is derived from this evanescent character of the delusions in artificial insanity. "Here we see," he says, "the profoundest conviction, differing so far in nothing from an insane delusion, at once dissipated by certain means. What, one asks, can be the condition of the brain while this induced false conviction lasts? Is it essentially the same, but perhaps differing a little in degree, in delusional insanity? May it in the initial state of the disease have been ex-

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actly the same? And if so, what intensely interesting questions suggest themselves, not only in regard to the pathology, but the treatment, of insanity!"

Dr. Tuke proceeds to describe minutely the production of the hypnotic sleep, and analyzes the various physical and mental phenomena connected with it. This is by no means the least interesting part of his excellent paper, but we are unable to reproduce it here. The following is a *resumé* of his conclusions:

To sum up the main points of this paper, I submit—

1. That while dreaming and natural somnambulism bear considerable resemblance to insanity; artificial somnambulism or Braidism, at a certain ideo-plastic stage, is still more analogous to, if not identical with, certain forms of mental disease, and therefore offers a better field for study than the former spontaneous conditions, and is more at our command for purposes of experiment.*

* Of course the same rule holds good here as in drug experimentation—to be careful not to injure the experimentee.

2. That, in all probability, the disturbance of the brain which accompanies artificial insanity is the same *in kind* as occurs in some forms of mental disease, and does not involve structural change.

3. That, bearing this in mind, the prognosis, in certain forms of insanity, should be more favorable than it often is.

4. That the mental condition which I infer to be present in certain forms of insanity, from a consideration of the mode in which artificial insanity may be induced and dispelled, forcibly shows the importance of the moral (or better, the psychical) treatment of the insane, and especially the necessity of acting systematically upon the attention.

5. That it is worthy of trial whether a directly suggestive mode of treatment might not be carried out, in some cases, with success, the medical psychologist availing himself of Braidism to acquire sufficient control over the patient's mind to direct the current of his thoughts from morbid into healthy channels.

6. And lastly. That there is reason to think that, independently of the suggestive treatment, refreshing sleep might sometimes be procured, and restoration to health accelerated, by inducing artificial somnambulism or hypnotism.

"*The Suicide of George Victor Townley*," is a brief editorial notice of the closing scene in the case of that noted criminal. He murdered a young woman who had discarded him, and on his trial pleaded insanity in defence. At first the plea of delusional insanity was set up, but "moral insanity" was the final resort of his counsel, and was sufficient to prevent the full penalty of his crime being awarded him.

Dr. Forbes Winslow was the leading expert who testified in favor of his insanity, and Dr. Bucknill the most eminent of those who denied it. We regret to believe that this forms another sad instance in which the fair fame of our profession has been injured, and the good sense of the community outraged, by the effort to sustain the fatal doctrines of moral insanity. But the accused has, of his own will, finally yielded his life for the life so atrociously taken away. He threw himself from one of the galleries of his prison some twenty-four feet to the floor below, and lived but a few hours after. A coroner's jury brought in a verdict of suicide while laboring under insanity, and the act has been adduced as favoring the opinion of insanity at the time of the murder. This view is, however, vigorously and we think successfully combatted by the editors, who find in the suicide a logical and fitting sequence of the murder.

Dr. Robertson returns to his former subject, "*On the means of Extending the Public Asylum System*," apropos of the late discussion before the *Société Médico-Psychologique*, of the same important question. This discussion was noticed at length in our number for April last, and as Dr. Robertson does not further enlarge upon his own views in this place, we shall pass to another article.

In the department of Clinical Cases, Dr. Samuel Wilks

treats of "*Cysts in the Cavity of the Arachnoid, or Hæmatoma of the Dura Mater, with remarks on their formation.*" We have noticed, in this article, a contribution to the same subject by Dr. Ogle. Dr. Wilks having in his possession a specimen of this rare form of cerebral lesion makes it the subject of a few remarks. In regard to the origin of these cysts, he favors the theory of a chronic change in effused blood, rather than that which makes them the result of the organization of lymph poured out during a former arachnitis. The effusion, he thinks, has probably occurred in most instances from a blow in the head, which has ruptured a vessel of the pia mater, but he admits that the blood may some times have been effused spontaneously in disease. The question in which of these two modes a given case has arisen may be very important in a medico-legal point of view. But, fortunately for our diagnosis, injuries to the head generally affect the surface of the brain, whilst disease involves the interior.

Dr. W. thinks that the supposed variety of these cysts is owing to their having long been mistaken for lesions of a different kind. He "deems it highly probable that many of those cases where so-called layers of lymph have been met with on the dura mater have been instances of this cyst development." Formerly, "the fact of a clot of blood putting on a membraniform appearance was scarcely recognized, and yet it is constantly witnessed in the case of a clot forming in a blood vessel, or in a coagulum discharged from the uterus, and which may in consequence be mistaken for an ovum; and so in many other instances." These seeming membranes were, we know, supposed to be the product of inflammation, and

served to support the old opinions as to the nature of a large class of cerebral disorders.

The review department opens with a critical estimate of a work by George Henry Lewes, on "*Aristotle ; a chapter from the History of Science, including an Analysis of Aristotle's Scientific Writings.*" In the opinion of the learned reviewer, what we may derive from this book "is an accurate appreciation of the degree in which Aristotle's information in scientific matters, and particularly as to biology, forestalls or foreshadows the advanced science of the present day." Mr. Lewes has also "rightly regarded Aristotle as the father of ancient science," and thus has acted wisely in selecting his works as a text for treating of the historical development of scientific opinion. And that in medicine, as in other branches of science, "opinions always have a history and an organic growth," the knowledge of which is of the highest importance to our profession, can not be denied. But the reviewer is disappointed "that notwithstanding the principles clearly laid down in the preface, there is comparatively little to be seen in this volume of the true influence of Aristotle upon succeeding philosophers and men of science. He also doubts whether Mr. Lewes has been fortunate, in all cases, in appreciating the ideas of his author. Especially in the two treatises, "*De Anima*," and "*De Generatione Animalium*," are these misconceptions apparent. But into the abstruse discussions to which the reviewer's criticism would lead we cannot now enter. Notwithstanding an important difference of view, in taking leave of Mr. Lewes' book he expresses a high sense of its value—"a value which cannot be measured adequately by a merely critical estimate of its contents."

Dr. C. Hanfield Jones' "*Clinical Observations on Functional Nervous Disorders*," and a work on "*Practical and Pathological Researches on the various Forms of Paralysis*," by Dr. Edward Meryon, form together the subject of an interesting notice. "The chief value of these books," says the reviewer, "consists in the attempts of their authors to read by the light of the most recent physiological investigations the pathology of disorders of the nervous system, and to lay down (so far as our present knowledge will allow) a clearer and better defined plan for their treatment than that which we have hitherto possessed." Our diminishing space will only permit us to add that from the excellent analysis of the works, as well as the high praise accorded them in terms, we should judge them to be of more than common interest and importance.

Dr. Barclay's book on "*Medical Errors. Fallacies connected with the application of the Inductive Method of Reasoning to the Science of Medicine*," meets with such a keen and scathing criticism as we are little used to find in the pages of a medical journal. The work is not sufficiently analyzed to permit us to form an opinion as to the justice of this terrible cutting up, but as the author has himself dealt very severely with some of the highest names among cotemporary medical writers, there is a fair presumption, at least, that he has deserved his fate.

The number for July has for its first article an analysis of the "*Statistics of Insanity of the Crichton Royal Institution, Dumfries*," by Dr. Hugh G. Stewart, assistant medical officer to that Asylum. It is not claimed that these statistics are so perfect, or extend over so long a term of years as to give them unusual value, but they are calculated at least to satisfy a much more rational

interest than those of Dr. Boyd in a preceding number. They are for twenty-four years, and appear to be as complete as could be expected for so long a period, and as the work of three successive observers.

We find that 16 per cent. more males than females received treatment. The number of recoveries was greater among the females. The deaths were nearly equal in each sex.

Most of the patients were single. There were more recoveries and less deaths among the married. Of the married who had children, more recovered and less died than of the childless.

There were less recoveries among the better educated class, but the highest mortality occurred among those of less education.

There were relatively less recoveries and more deaths among members of the learned professions than of any other class. The class of artisans afforded most recoveries, "proprietors next, commercial men next, and architects, engineers, &c., next." Among females, the fewest recoveries were found among the affluent, and there were more deaths among this and the artisan than among the commercial class.

Physical causes were ascribed in a greater number of cases than moral; the latter class of causes was more efficient in women than in men. Among those insane from moral causes there were more cures and more deaths, both of males and females, than among the insane from physical causes.

One-half the cases were hereditary, and in 12 per cent. the insanity was ascribed entirely to heredity.

The greatest number of first attacks occurred between the ages of 20 and 30. The most recoveries were of

those between the ages of 10 and 20, and 40 and 50 years; they were next greatest in number between the ages of 20 and 30. The per-centage of deaths was highest among the class of greatest age at the time of first attack.

Of the admissions, 66 per cent. were cases of first attack, 15 per cent. second, 7 per cent. third, and 9 per cent. more than the third attack. The proportion of deaths was highest in the cases of first attack.

The deaths were fewer among the recently attacked than among the cases chronic at admission.

Nearly one-half the patients were in good bodily health; in 31 per cent. it was indifferent; and in 18 per cent. bad. The recoveries were greatest in those of indifferent, and least in those of bad health. There were the least deaths of those in good health, and most among those in bad.

The greatest number of those admitted were from 20 to 50 years of age. The proportion of deaths steadily increased with the increase of age.

Mania was the most frequent form of disease; next melancholia, next monomania, and next dementia. After dipsomania melancholia was most curable, and after it mania and monomania. Deaths were most frequent in dementia, less so in monomania, and least frequent in mania and melancholia.

In the greatest number of cases insanity lasted less than one year. More than half of those remaining only a month in the asylum died; in those six months under treatment there were the least deaths; and afterward the mortality, on the whole, went on increasing.

Under the head of Clinical Cases, Dr. G. Mackenzie Bacon writes of "*The Pathology of a Case of General Paralysis; with a Report of the Microscopical Examina-*

tion of the Brain," made by Dr. Samuel Wilks. This was an ordinary case of the disease, and its interest centres in the autopsy. The microscope showed all the vessels of the brain, and especially those of the medullary substance, to be ossified, or containing in their coats calcareous salts. The cineritious substance was greatly degenerated, and instead of "the natural fibres and ganglionic cells only, was full of granules and small irregular-shaped bodies, not conglomerated, but at certain intervals apart." These were "irregular in outline, triangular, or with processes suggesting that they might be the ganglionic cells which had become wasted or calcified."

First in the review department of this number, is an excellent paper, based upon a number of new works on the various Roman, Turkish and Anglo-Turkish baths, in which the subject of bathing is treated in its relations to medicine and hygiene.

The writer begins by enlarging upon the ignorance and prejudice which prevail, even in the most enlightened countries, in regard to bathing. In common and sea bathing a great mistake is made in insisting that the bather should be thoroughly cool before entering the water. "In other words, instead of acquiring caloric where-with to meet the depressing shock of cold water, he is made to part with as much caloric as possible." The immediate result is seen in chattering teeth, and numb and bloodless extremities, and the ultimate effects "in chlorotic looks, in constipated bowels, in susceptibility of cold, in general languor, in vitiated appetite, in scurfy and un-secreting skin." The prejudice from which this really great evil follows, it is the office of the Turkish bath to remove. It has proved, "that the most profuse perspiration may be suddenly checked, not only without risk,

but with the most positive advantage." In fact, "the vigor of the circulation and the heat of the body are the true measure of capacity for cold. The reaction from the shock of the sudden change is glowing and immediate, and, in a healthy skin, manifests itself in renewed transpiration. But there is no reaction to one who plunges into cold water with a cold skin."

Another popular prejudice is that which "forbids the exhibition of cooling drinks when the system most needs them—in other words, when it is at the highest pressure of vital force. When does man most need water? When nature makes its most imperious demand: when she requires that the fluids eliminated by perspiration and other secretions shall be replaced. Here again, thirst, which is the ratio of heat, is the measure of the capacity for cold." Respecting these two popular errors, the reviewer further says:

These are the two great traditions of ignorance which have been religiously preserved to this generation, and which have stood between fully satisfactory and health-giving results from the ordinary water-bath in daily use amongst us. And yet, happily, with the advance of social science, and the increased supply of water by the great companies to all large towns in England, the passion for bathing has greatly increased; "baths and wash-houses" are eminently successful. There are more clean skins (relatively clean,) in the ratio of twenty-five to one, among the artisans of London than there used to be twenty years ago. This is a great move in the right direction. But more remains to be done yet. *The true bath of hot air, and then of water*, by which the skin is rendered *absolutely* clean, must become a great national institution. Before it our prejudices will fall, and our ignorance be dissipated. Our national life will be larger, our means of resisting climatic changes and repelling disease multiplied. We invite the rich and over-fed by telling them that in the land where the bath has alone been preserved the agony of gout is unknown.* We invite the poor and the under-fed by telling them that heat is life; that a porous and unscarfed skin is another lung in this smoky London; and the more

oxygen they imbibe the greater will be their capacity for the pressing duties of manual labor.

We should be glad to quote very largely upon a subject of so much interest, and from an essay so admirably written. But our purpose is rather to give a picture of our cotemporary than to transfer its pages to our own. The writer notes the progress of Turkish bathing in Great Britain, and proceeds to give a history of the bath in various countries, and at various stages of civilization. He next notices the forms of disease under which Turkish bathing may be used with safety not only, but with decided benefit. And perhaps the impunity with which the sufferer from heart-disease, fevers and phthisis may pass twenty minutes in a chamber heated to 150°, preparatory to being vigorously shampooed and drenched with warm water, will astonish the reader more than anything else. But not only may such patients bathe with impunity, it is claimed to be extremely beneficial to them. As to rheumatism and gout, the bath is a real specific. What concerns us most, however, is the statement that "beneficial effects are likely to accrue, and have already accrued, from thermal agency in the treatment of mental disease." It has already been applied with marked success in many of the Irish County Asylums. "In England, at Colney-hatch Asylum and several others, baths are now in process of construction; and Dr. Robertson's ex-

* Gout, a true blood-disease, is said to be unknown amongst the Turks; and this exemption is probably as much due to the free action of the skin caused by the bath as to their temperate habits. In estimating the value of the bath, however, as a curative agent, the special effects of caloric are to be taken largely into account. The effects of the higher degrees of heat possess a great, but as yet an almost unrecognized importance.—*Dr. Leared, from the "Lancet," November and December, 1863. ["Manual," pp. 259-60.]*

perience at Hayward's-heath is so satisfactory that we hope, in a few years, no county asylum will be without the opportunity of confirming his important evidence. The functional disturbances which are leagued so extensively with insanity, the imperfect nutrition of the brain, and, above all, the peculiar condition of the skin, invite the action of the hot-air bath, on reasonable grounds, with abundant promise of success. Dr. Robertson alludes to the latter symptom as one especially met by the application of the bath, which has a specific power to remove the noxious secretion of the skin, so frequent with the insane, and which, in the asylums of twenty years ago, one could recognize as distinctly as the smell of a dog-kennel, and which still sometimes refuses to yield to ordinary ablution. The bath entirely removes this unpleasant complication."

The writer closes with a detail of the several processes of the Turkish bath, as improved and exemplified in the bathing-houses of London; which, in a period of two years, have received the patronage of more than 130,000 persons.

The issue of a second edition, revised and enlarged, of Dr. A. Brière de Boismont's great work, "*Du Suicide, et de la Folie Suicide*," is made the occasion of an article on that subject, always so full of a melancholy and curious interest. The article is an able analysis of the most noteworthy portions of Dr. De Boismont's book, with much that is new from other sources, and something of the writer's own conclusions. Among the latter is, "that as knowledge advances, the number of 'reasonable' suicides will diminish to a vanishing quantity, and it will be more and more understood how impaired volition can be as much a matter of disease as a delusion or a

state of raving." We can easily believe one holding such an opinion, may be able to accept Buckle's dictum, that "suicide is merely the product of the general condition of society, and that the individual felon only carries into effect what is a necessary consequence of preceding circumstances."

The "*Autobiography of the late Sir Benjamin C. Brodie, Bart.*," forms the subject of the last book-notice in this number. The notice is little more than a condensation of the main facts of the book, and these have been made familiar to our readers through the newspapers. The author has not formed an exalted estimate of the mind and character of his subject, but it seems a candid, and is, perhaps, a nearly correct one. Sir Benjamin was, he thinks, a man of sense rather than of genius; a man of the times, rather than of all time; a man who had much shrewdness and sagacity, great tact and industry, and withal "the sunshine of whose prosperity was never darkened by a single cloud."

We now close our notice of the chiefly original parts of this journal with the feeling that it would not be easy to speak in too high terms of the spirit and ability with which it is conducted. But we must also refer to the part edited by Dr. J. T. Arlidge, the "Quarterly Report on the Progress of Psychological Medicine." This forms an important feature of the journal, and is made very complete and full of interest. As a whole, the *Journal of Mental Science* well deserves to be the representative, in Great Britain, of a specialty which embraces the names of so many men eminent for philanthropy and learning.

On Sleep and Insomnia. By WILLIAM A. HAMMOND, M. D. New York.

This memoir, on the physiology and pathology of sleep, and the treatment of insomnia, has been reprinted from the *New York Medical Journal* for May and June of the present year. The subject is one of great practical interest, and Dr. Hammond brings to its examination that vigor of reasoning, and fulness of personal experience, which appear in all his works.

It has been supposed for centuries, and is now generally held by physiologists, that during sleep the cerebral tissues are in a degree congested, and that this congestion is, in fact, the proximate cause of sleep. Dr. H. seeks to establish, on the contrary, "that sleep is directly caused by the circulation of a less quantity of blood through the cerebral tissues than traverses them while we are awake." This, too, he deems the immediate cause of healthy sleep. The argument from analogy is, that as regards other viscera than the brain, it is well established that during a condition of activity there is more blood in their tissues than while at rest. From observations on the human subject, in cases where accidental fracture of the cranium has exposed the cerebral mass, and from experiments upon animals, are drawn the positive proofs of this theory. Of these proofs, detailed by Dr. H., several are cited from Blumenbach, Dendy, Fleming, and others, but they are taken mainly from his own experience. Not only was the quantity of blood circulating through the brain during sleep found to be less than during wakefulness, but sleep was directly induced by arresting the flow of blood to the head.

What, then, are the pathological relations of insomnia, and what is the proper treatment for it? In the opinion

of Dr. H., "no one cause is so productive of cerebral affections as persistent wakefulness." "We should be careful, however," he says, "not to mistake the effect for the cause, an error which is often committed in this as well as in other matters. It is well known that many cases of insanity are marked in the early stages by persistent insomnia. Doubtless this is frequently a consequence of the morbid action already set up in the brain, but much observation has satisfied me that it is more often the cause of the cerebral aberration, and that by proper medical treatment the mental excitement may be generally allayed. Certainly the means most commonly resorted to in such instances are adopted without the full consideration so imperatively necessary, and consequently are fully as liable to increase as to lessen the disturbance."

The fact that attacks of insanity are very frequently introduced by a period of sleeplessness has long been well known, and up to a recent period "want of sleep" has had an important place in the tables of causes of mental disease. Dr. Brigham, the first editor of this journal, attributed a large proportion of the cases observed by him to this cause, and in his work "On the Brain," urged the extreme importance of the prevention and treatment of insomnia. No one will deny the practical wisdom of this doctrine, though we may well doubt, with Dr. H., the value of the remedies usually resorted to. But it is our own, and at present we believe the general opinion, that insomnia can not be termed a common cause, strictly speaking, of mental disease. Where sleep has either been voluntarily refrained from, or has been made impossible to the patient by some obvious cause, then the insanity may properly be considered as

due to insomnia. Instances of this kind are, however, comparatively few. Insomnia will much oftener be found to be due to that cerebral erethism which is a part of the insanity, and proceeds from disordered nutrition of the brain substance, itself the result of hereditary or other slowly and obscurely developed causes.

Dr. H. makes two divisions of insomnia, sthenic and asthenic. In both, however, there is always an increase in the quantity of blood in the brain. In the first, this excess is absolute. The whole system is rich in blood, which from various causes may be determined to the head. In the second, there is only a relative excess. From hemorrhage, or other source of exhaustion, the system has become exsanguinated, and to this the brain has adapted itself. But there is in such a condition great liability to a rush of blood, as it is called, to the head, and consequent insomnia.

The pathological cause in each of the two forms is then similar; but as the means of relief are not altogether the same in both, it is important to discriminate between them. The sthenic form is illustrated by the case of a banker, who, during a period of great financial excitement, had kept his brain so continually active that sleep became impossible to him. His appetite was good, and all the bodily functions were properly performed. When first seen by Dr. H. he had not slept at all for six nights, though he had taken large quantities of brandy, morphine and laudanum. He experienced no unpleasant sensations during the day, beyond a slight confusion of mind at times, and a little pain in his eyeballs, but on going to bed a feeling of most intense uneasiness came over him, and at the same time his face and ears became

hot and flushed. His mental faculties were excited to increased action, and sleep was altogether impossible.

This patient was cured by the bromide of potassium, given in the dose of thirty grains twice in one evening, and once on the night following.

An instance of asthenic insomnia is given in the case of a lady who was greatly reduced in health by menorrhagia, and long wakefulness under mental anxiety. Large doses of laudanum, ether, valerian, and many other medicines had been taken, all without effect. When first seen she was highly nervous and irritable, hands very tremulous, eyes bloodshot and the pupils contracted. There was a constant buzzing in her ears, hearing was preternaturally acute, and a general hyperæsthesia of the skin prevailed over the whole surface of her body. At night all these symptoms were increased in violence, and the most tormenting fancies and hallucinations thronged her mind. She was, however, fully sensible of the unreality of her visions, and had no tendency to mental disease. Her case being regarded as one of relative or passive cerebral congestion, she was ordered an ounce of whiskey every hour for six hours before bedtime, when she should sit up to the neck for half an hour in a bath at 98° F., and afterward in an easy chair, and try to sleep in that position. This treatment was entirely successful.

The causes capable of inducing hyperæmia of the brain and insomnia, are placed by Dr. H. under three heads :

“1st, *Long-continued or excessive intellectual action, or any powerful emotion of the mind.*”

That cerebral activity, or mental emotion, does produce a degree of congestion of the brain, all analogy and

observation abundantly testify. It is well known, too, that if by the use of stimulants we send an increased quantity of blood to the head, the functions of the brain will be more actively performed. But if, either by the force of will or by stimulants, the brain is kept active for a long period during which its vessels are filled to repletion, these will finally lose their power of contraction. Just so the bladder, when a desire to urinate has been for a long time resisted, becomes paralyzed, and cannot be emptied by the strongest effort of will. Instances of insomnia coming under this head are extremely common.

“2d. *Those positions of the body which tend to impede the flow of blood from the brain, and at the same time do not obstruct its passage through the arteries, whilst causing hyperæmia, also produce insomnia.*”

This statement cannot, of course, be intended to have so general an application as its terms would warrant. That the prone position is naturally unfavorable for sleep, will not be credited by that large proportion of mankind who go to bed at night with the unfailing expectation of at once falling asleep. It seems reasonable to suppose that where excessive use of the brain has deprived its arteries of their proper tonicity, by inducing a paresis of the *vaso-motor* nerves, lying down may increase the congestion and the consequent insomnia. Advanced age brings on the same condition of the cerebral arteries and brain substance, and we know that old people often sleep best when sitting. But in cases of insanity and cerebral disorders in general, we do not believe that this mechanical cause plays an important part. Physical rest, and the force which must belong to the habit of sleep in the prone position, have seemed, in our

experience, more than sufficient to overbalance any disadvantage arising from it.

“3d. *An increased amount of blood is determined to the brain, and insomnia is produced by certain substances used as food or medicine.*”

A too rigid determination to simplify and systematize is apt to be a fault of the most acute and highly scientific minds. In this way facts are not seldom bent to the support of a theory which they do not favor, and sometimes are even ignored or rejected. Our present knowledge will not permit us to frame a complete and rational theory of the action of any one narcotic, much less of the whole as a class. That a degree of congestion of the brain and insomnia are conditions which of necessity go together, we also think it hazardous to assert. The converse of this, that “no substance is capable of acting as a direct hypnotic except that which lessens the amount of blood in the brain,” seems even less clearly warranted by the common experience.

Dr. H.'s theory leads him to place among the agents which produce a determination of blood to the brain and consequent insomnia, alcohol, opium, belladonna, and the whole list of narcotics, while the only true hypnotic is the bromide of potassium. We doubt if such a classification represents more than a single aspect of the many-sided relations which these substances bear to the human organism. What marked differences, for instance, in the action of alcohol and opium. Opium and belladonna, too, are well known to be antagonistic in some of their most striking effects. According to Dr. C. Hanfield Jones, the former contracts the vessels of the brain, while the latter dilates them. Much indeed remains to be learned upon the whole subject, and we would say only

that Dr. Hammond's theory is not in all respects satisfactory. The fact that alcohol and opium may produce coma, he believes to be in consequence not of an increased amount of blood in the brain, but of the circulation of that which has not been duly oxygenated. "My experiments," he says, "on this head have been many, and show conclusively that neither alcohol nor opium possess any narcotic effect if means be taken to insure the full æration of the blood. If these substances be administered beyond a certain limit, they so act upon the nerves which supply the respiratory muscles as to interfere with the process of respiration, and hence the blood is not sufficiently subjected to the action of the atmosphere." But if opium may thus act upon the nerves which supply the respiratory muscles, why may it not have a specific effect upon the cerebral substance? To us it seems more rational to suppose this than that the sleep of opium is true coma, and the immediate effect of poisoning by carbonic acid.

The chief means of treatment for insomnia are, in accordance with the principles of Dr. H., those agents "which, either mechanically or through a specific effect upon the heart and blood vessels," lessen the amount of blood in the brain. Under this head, of course, opium and the other narcotics are not mentioned. Alcoholic liquors are, however, considered to be highly useful in asthenic insomnia. The only drug recommended in the sthenic is the bromide of potassium. This, he believes, may almost always be used with advantage to diminish the amount of blood in the brain, and to allay any excitement of the nervous system that may be present in connection with such an excess. But in addition to this are the important hygienic means of position and tem-

perature. To the former we have already alluded. The warm bath is considered a most valuable means of determining blood from the head, and calming nervous irritability. Especially in children, putting the feet into water of the temperature of 100° F. has been found, by Dr. H., sufficient to induce a sound and healthy sleep, when laudanum and other means have failed. He also recommends cold water applied directly to the scalp as often of great effect in diminishing the amount of blood in the cerebral vessels, and inducing sleep.

Now we can not fully accept the views of Dr. Hammond, and consent to banish, or even greatly to degrade narcotics from the high position which they have so long maintained in the treatment of insomnia. But a large observation in cases of recent insanity has convinced us, that as too often employed they are more hurtful than beneficial. Since venesection has become partially obsolete in the routine treatment of mental disorder, opiates seem to have taken its place, and it would not be easy to say which, on the whole, is the worse for the patient. Moderate and timely bleedings were doubtless beneficial in certain cases of mania, in its incubative stage. So also are opiates, especially when combined with other drugs and with certain hygienic remedies. But if a senseless routine of prescribing for names instead of pathological conditions must continue, we shall declare for the simple and harmless measures of Dr. Hammond, even if we do not admit his theories sufficient to account for all the phenomena of sleep and wakefulness.

SUMMARY.

ON SEPARATE ASYLUMS FOR CURABLES AND INCURABLES.

A superficial and long-ago exploded theory of separate establishments for the curable and so-called incurable classes of the insane has been lately revived, to some extent, in this country. By the great majority of medical officers of American Asylums this proposition is entirely disapproved, but the advocates of the measure have borrowed a certain fictitious influence from the action of the Legislature of this State in its creation of the Willard Asylum for the Chronic Insane. It should be borne in mind, however, that the measure was adopted by the State Government during a period of civil war, when the great question of the day absorbed every thought; and that the time and occasion were unfavorable to calm investigation and discussion of subjects of lesser moment. It was adopted at a time also when the startling disclosures of Dr. Willard's Report brought home to the mind of every legislator the necessity of immediate action and relief. It is not surprising, therefore, that a law enacted under such circumstances and embracing a subject of such magnitude as proper provision for the insane should, to some extent, be based on wrong principles. The next Legislature will convene under happier auspices, when the defects of the existing law will, we trust, be fully considered and the policy of

the State brought into full accord with the demands of medical science and the humanity of the age.

Elsewhere in the pages of the JOURNAL will be found a discussion of some of the cardinal principles upon which the treatment of the insane is based. In connection with this paper* we ask the reader's attention to the following extract from an able work entitled, "The Construction and Organization of Establishments for the Insane,"† by Henri Falret, Docteur en Médecine de la Faculté de Paris :

SHOULD CURABLES AND INCURABLES BE RECEIVED IN THE SAME ASYLUM?—After the impulse given by Pinel to an enlightened and kind treatment of the insane, at the beginning of this century, the asylums became insufficient, and it was necessary to erect new ones more in accordance with the demands of medicine and humanity.

It was then that the thought occurred, which seems so natural at first sight, of giving special care and attention to those cases susceptible of cure, and of erecting for them alone, asylums entirely in conformity with the progress of science. This separation, enforced by circumstances, was a marked advance upon the former state of things, by putting a stop to the indiscriminate mingling of the insane, and contributing powerfully to destroy the prevalent idea of the incurability of insanity. But this separation, the result of an accidental necessity, has more lately been established into a system.

In France, this theory, although sustained by Esquirol,‡ has not found any real application; and if at Salpêtrière the curables and incurables have been placed in different sections, it is more in consequence of an administrative measure, than from medical reasons. In England there are only two asylums, Bethlem and St. Luke, designed exclusively for curables; however, the Metropolitan commissioners§ have pronounced in favor of the separation of the two classes; but it

* Article on the Willard Asylum and Provision for the Insane, p. 192.

† A Translation of this paper is given in the JOURNAL OF INSANITY, Vol. X.

‡ *Maladies mentales*, t. 2, p. 404, 405.

§ Report of Metropolitan Commissioners in Lunacy, p. 92, 1844.

is above all in Germany that absolute separation in distinct asylums has been carried out, and elevated to the rank of a scientific theory. Reil and Langermann, its most ardent supporters, obtained from the different governments of the German confederacy several establishments designed expressly for curables. That at Sonnenstein was erected in 1812, Siegbourg in 1825, and Winnenthal in 1833. Hayner, in devoting himself to the perfecting of asylums for incurables, and in producing remarkable results, has added another powerful argument in favor of the system of separation.

The motives which have influenced these physicians, are of two kinds: Administrative and Medical:

1st. *Administrative Motives.* The treatment of mental alienation, requires particular and expensive arrangements. It is just to unite these favorable conditions in asylums for curables; but it would be superfluous to incur the same expenses for incurables.

2nd. *Medical Motives.* An asylum for treatment, and for refuge, having two distinct aims; these two aims cannot be obtained by the same means; they should then, be entirely different, in regard to construction and organization. To unite the curables and incurables in the same asylum, would be to retrograde to the period when the insane were all placed together, without the slightest distinction, and fatal to treatment, in bestowing upon the incurables a share of that medical attention which should be concentrated upon the recent and curable cases.

Finally: the sight, and presence of the incurable patients, produces a painful and injurious impression upon the curable ones.

These reasons, which for a long time, have convinced some of the most distinguished physicians have been powerfully combatted by Dr. Damerow, physician at the asylum of Halle, in Prussia, in a work entitled "*Ueber die relative Verbindung der Irren Heil und Pflege Anstalten, Leipzig, 1840.*"

In adding to his own arguments those which had been given some years before by other physicians, particularly Flemming* and Roller,† he has given a fatal blow to the separation of curables and incurables in distinct asylums.

The inconveniences mentioned by Damerow can be divided into two classes, those resulting from the two asylums being distinct from

* Zeitschrift von Jacobi und Nasse, p. 722.

† Grundsätze, etc., p. 93 et suiv.

each other, and those resulting from the distinction established between these two orders of insanity.

1. The inconveniences resulting from the separation of the curables and incurables in distinct asylums, are :

1st. The indefinite delay of isolation and seclusion, and consequently of cure, by reason of the formalities necessary before deciding to which of the two asylums the insane person should be taken. In some countries they have proposed to remedy this evil by passing all the new patients through the asylum for curables ; but this destroys the exactness of the separation, and the institution for curables will be found to contain many incurables.

2d. The prolonged stay of incurables in the asylum for treatment, by reason of the obstacles to their removal.

3d. The difficulty if not impossibility of repairing an error of diagnosis, and of returning the patient to the asylum for curables.

4th. The inevitable increase of the expense of construction and support, as the administration and medical services require to be doubled.

B. The inconveniences resulting from the distinction of the patients into curables and incurables are :

1st. The impossibility for the physician in the actual state of science to pronounce with certainty ; the numerous mistakes which he must necessarily commit destroying the aim of the Institution in encumbering with incurables the asylum for curables, and depriving the insane still susceptible of recovery of the most favorable conditions of the asylum for treatment.

2d. The pain given to the insane themselves, for the greater part of them are far from being insensible to this change.

3d. The pain inflicted on good parents and friends to whom the decision of incurability leaves no more to hope for, and the encouragement given to unkind ones who are glad to have a pretext for their neglect.

4th. The obstacle to the progress of science in giving to some physicians opportunity to observe only the acute stage of the disease, and to others only the advanced periods, and to make from them alone his autopsies without the power of throwing any light upon them by the knowledge of anterior facts.

5th. The ungrateful office assigned to physicians in asylums for incurables, who cannot have as a recompense for their trouble and anxiety, the hope of effecting a cure.

After having combatted in so successful a manner the separation of curables and incurables in distinct asylums, Damerow stops half way, and instead of renouncing all separation, is in favor of what he calls a *relative union*, that is to say, the separation of curables and incurables in *the same asylum* under the same superintendence, and with the general services in common. This mixed system, which has been so much liked in Germany, is applied to the greater number of the new institutions, among which we may mention the asylums of Illenau, of Prague, and of Halle.

The system of relative separation has not all the inconveniences of absolute separation; thus it remedies all those resulting from the first class; the asylums being united, there is no delay in sending the patients; the facility of transfer prevents the prolonged stay of the incurables with the curables, and gives opportunity to repair promptly an error of diagnosis; and the expenses are diminished, as there is only one administration and the general services in common. But do not the inconveniences of the second class still exist in the system of relative separation? Without doubt the connection of the two asylums diminishes some of the difficulties; but can we say that those which belong to the very nature even of separation are completely removed by the sole fact of the juxtaposition of the asylums? Is there not for the physician the same difficulty in determining the case; the same danger for the Institution by reason of the stay of a great number of incurables in the department for curables; the same inconveniences for the patients who are victims of an error in diagnosis? And if it is easier to repair a mistake by reason of proximity, can we believe that the physician who has committed it, would be the one suitable to rectify it? Finally does not the pain inflicted by the judgment of incurability on the insane themselves, and on their friends always exist?

Relative separation then, though preferable to that which is absolute, has still the inconveniences which belong to the latter. Why not then renounce completely the separation of curables and incurables? The pretended administrative and medical advantages which we have mentioned in the commencement, and which have influenced the German physicians so far as to induce them to prefer even absolute separation to the union of curables and incurables, seem to us more apparent than real.

What economical advantage is there in the separation of the two classes, unless we suppose that the incurables are neglected, and that all

is not done for them which the claims of humanity demand? In what differs the divisions for curables and incurables in the establishments of Illenau, Halle, and Prague? Has not their construction cost as much? Is not the number of sections the same? And are not these two establishments joined to each other? In doubling thus the number of divisions the whole expense of the institution is considerably augmented. Ought not the incurables to work, both to occupy their time, and for their benefit? Have they not need of attendants to watch over them? Of a physician to care for their accidental maladies, or to regulate their regimen and their conduct?

At the present time then, the condition of a good asylum for refuge, differs so little from that of an asylum for treatment, that the saving of expenditure which might result from their separation is altogether fallacious, and far from attaining the economical end had in view by the absolute or relative separation of curables and incurables, the expenses of management are increased. The medical advantages which have been supposed important are also entirely illusory. What evil influence can the sight and presence of incurables have upon the curables. If this influence exists, absolute or relative separation remedies it but very imperfectly, because it is acknowledged that in the asylums for treatment, there are scarcely more than 20 or 30 curable cases in 100. As for the rest, we admit that in a well conducted establishment the epileptics should have a separate division; that idiots, and some patients altogether degraded in mind or person, negligent and unclean, and who exert an injurious and painful influence upon other patients, should be carefully separated from them; but we separate them as violent, disorderly or slovenly, and not as incurables. We do not admit that an insane person, because he is incurable, can have any evil effect upon those susceptible of cure; he may be to the contrary much more calm, much more manageable and conduct himself much better than they do; and far from being injurious, may exert a happy influence, by the habits of order, of regularity, of industry and obedience, which he has acquired during a long stay in the asylum, or which have become easier to him in consequence of the cessation of the violent symptoms of his malady.

Why should a physician necessarily have too much of his attention taken up by the incurables, because they are placed with the curables? Can he not recognize the sick? Has he need that they should be pointed out to him by the arrangement of the buildings, in order that he should recognize those who may claim more particularly his atten-

tion? Besides, is it not easy for him to unite in a sub-division of those who are quiet, the insane that at the time seem to require more especially his care, without having recourse to a fundamental division serving as a basis for the general plan of the establishment, and made superior to that for the separation of the sexes?

In conclusion, the medical and administrative advantages resulting from the absolute or relative separation of curables and incurables; not having the value which has been attributed to them, their union should be preferred; but a *methodical* union, which seems to us as much superior to relative separation, as that is to absolute separation, and as this last is to the indiscriminate mingling of former times.

AN ASYLUM FOR THE INSANE SHOULD BE NEAR A LARGE CITY

Nearly all authorities agree in the opinion that Asylums for the insane should be located in the neighborhood of cities. Various circumstances conspire to make such a relation particularly advantageous to the institution.

In the first place it greatly diminishes the construction account of the asylum. The city affords a cheaper market for material and supplies for building; and these can be obtained at such times and in such quantities as necessity indicates, and without the expense of transportation, reshipment, etc. From the foundries and machine-shops of the city are easily transferred the boilers, engines and apparatus for supplying the house with heat; and necessary repairs of machinery can be secured without delay. In a city labor is more abundant and more readily retained. Workmen gather to their own homes at night and thus relieve the institution of trouble and expense of subsisting and controlling large bodies of temporary employees.

To be in the vicinity of a city greatly enhances the material and moral prosperity of an asylum. The intel-

ligent and refined, the philanthropic and wealthy citizens become interested in its welfare and lend their aid and influence.* Thus the asylum becomes the recipient of numberless favors which could not otherwise be secured, and patients are cheered by the thought that although far distant from home, they are still objects of interest and tender solicitude. The active and enlightened interest thus manifested by the classes referred to tends to elevate the character and reputation of the asylum at home and abroad, and to increase its usefulness.

The neighborhood of a city offers advantages in the way of its varied entertainments. Amusements constitute an essential feature in the treatment of insanity. They serve not only to break the monotony of asylum life by diverting the mind but they operate as tonics and stimulants upon the diseased mental organization. The engagements of musical celebrities, distinguished public lecturers, and the like, are altogether with large cities; and in our experience at this institution we have always found that these caterers to the entertainment or instruction of the public, when visiting Utica, have with a generosity and kindly feeling which has become characteristic, volunteered a repetition of their performances at the Asylum for the gratification of the patients.

Another advantage we should not omit to mention is the facility for communication by the horse-railroads which now traverse the thoroughfares of our principal cities and stretch their lines into the neighboring suburbs. These not only offer ready conveyance to those visiting the institution on business or to see their friends, but they afford the means, at small expense, by which feeble

* This fact has been strikingly exemplified in the history of the Pennsylvania Hospital for the Insane, at Philadelphia.

patients and women may enjoy the benefits of out-door air and exercise, from which they would otherwise be debarred.

The vicinity of a city enables the asylum to purchase at great advantage its supplies and provisions, particularly those which are of a perishable nature. At the same time it furnishes a convenient market for the sale of the surplus products of the farm and garden; thus adding materially to the revenue of the institution.

The advantages of a city, social and professional, to the medical staff of an asylum, will be readily appreciated by those familiar with the exacting and exhausting character of exclusive practice among the insane. Another beneficial result is the facility afforded for obtaining the best medical and surgical counsel in obscure and difficult cases. Moreover the vicinity of a city enables the asylum to secure a better and more permanent class of attendants. It would be almost impossible to retain for any considerable time in an entirely solitary spot in the country, an efficient and intelligent corps of attendants. Irritability and ennui are the natural effects of constant association with the insane and the thousand petty annoyances which beset and the wearisome duties which devolve upon such attendance. Hence the need of diversion and frequent contact with healthy minds, for which the amusements and social enjoyments of a city afford ample scope. A large class of attendants in every asylum are members of some church, and the opportunity of worshipping in their own church, if not a *sine qua non* of their remaining in the asylum, removes a very important objection to such a connection.

We conclude in the words of an eminent author :*

* Dr. Falret.

“It is only in the vicinity of a large city, that we can find all the desirable advantages: from it the asylum can easily purchase all the necessary materials and provisions. A large city too contains infinite resources; there can be found the most distinguished physicians, the most intelligent attendants; social and scientific relations indispensable to cultivated minds, and recreations and amusements of all kinds. Therefore we should prefer to have an asylum near a large city.”

CURABILITY OF THE INSANE.—In a perfect state of things, where the best appliances, which the science and skill of the age have provided for healing, are offered to the lunatics in as early a stage of their malady as they are to those who are attacked with fever or dysentery, probably eighty and possibly ninety per cent. would be restored, and only twenty or perhaps ten per cent. would be left among the constant insane population.—*Dr. Jarvis.*

COMPARATIVE COST OF SUPPORT OF THE INSANE AND THE SANE.

We have just received a Memorial addressed by the Trustees of the Worcester Lunatic Hospital to the Honorable Senate and House of Representatives of Massachusetts, representing that the sum allowed by the Commonwealth for the payment of the board and care of the State paupers in the hospital is much less than the actual cost.* The author is Dr. Edward Jarvis of Dorchester. Dr. Jarvis is not only an eminent authority upon whatever relates to insanity, but as a Statistician he has no superior.

* The law, as it now stands, allows \$2.75 per week for the support of these patients, while the actual cost, at the present time, is \$3.77

The following extracts from the Memorial are not only highly instructive, but they afford the strongest corroboration of certain arguments brought forward in our paper on the Willard Asylum.

THE INSANE COST MORE FOR SUPPORT THAN THE SANE.—The management of the insane is necessarily different from, and more expensive than, that of the sane. The architectural arrangement of the lunatic hospital is very unlike that of a common dwelling, or any other public institution, and its walls, partitions, windows and doors, must be much stronger. The managers and the guardians, the officers and attendants, must be men of great discretion, sagacity and patience, who would earn large wages elsewhere, and can only be obtained and retained by larger rewards than are paid to those who attend on, and do the work of, healthy men and women abroad.

There is a similar difference in the cost of the food of the mentally healthy and disordered. In all the most common forms of insanity, mania, melancholia and dementia, the patients need a more digestible and nutritious diet, than men and women in health. Their malady, their excitements, and their depressions increase the necessity that they should have food that is easily dissolved in the stomach, and converted into living flesh by the nutrient arteries. They need nourishment, not only of better quality, but oftentimes more abundant in quantity, to meet the excessive and morbid expenditure of force by the maniac in his excitements, and to save the melancholic and those who are tending to dementia from sinking under their depressions into torpidity, and if possible to raise the demented out of their sluggishness. Regarding the necessities of lunatics, familiar with their dangers, and desiring to fulfil the purposes of a hospital by restoring as many as possible to health, and saving as many as possible from sinking into mental death, the managers of these institutions everywhere feed their patients better, and at a greater cost, than sane men and women are fed abroad.

In England, under the supervision of the county and borough magistrates, and the guardians of the poor, who administer the funds intrusted to them with the greatest economy, the average cost of supporting the insane paupers, for food, clothing, attendance and management in the public asylums, is more than three times as great as that of supporting the sane paupers in the work-houses. In Ireland, the

cost of sustaining the insane poor in the asylums was almost three and a half times as great as that of the sane paupers in the work-houses. A similar, though smaller, difference is made here. The average cost of the town and city paupers in almshouses, in Massachusetts, is about one-half of that of supporting the insane paupers in the hospitals; and the cost of the support of the State paupers in the State almshouses is in still smaller proportion. The cost of supporting the inmates in the workhouse, in the city of New York, is less than one-half of that of the inmates of the city lunatic asylum. The average cost of the sane paupers in the county poor-houses, through the State of New York, was eighty-six cents a week, while the cost of the insane paupers in the State asylum, was three dollars and forty cents, in the five years from 1858 to 1862. Universally, as far as the records have been printed and obtained, the managers of the insane have obeyed this pathological law, and yielded to the necessity of giving their patients a better, and, of course, a more costly sustenance and care, than are needed for the support of sane men and women, in order to restore them to health, or to save them from sinking into dementia and permanent disease, or early death.

In obedience to the same law of the disease which they were appointed to treat, and in accordance with the manifest design of the Commonwealth, and the calls of humanity, as well as of economy, to give every patient the best chance of restoration to the enjoyment of life, and the power of self-sustenance, if he or she were curable by any human means, to keep the excitable in their calmest condition, to rescue those who were in danger of or were tending downward to dementia, from that state of mental torpidity, and to save the demented from absolute mental death, the managers of this hospital have employed discreet and intelligent attendants, and provided and prepared nutritious and digestible food, which, though somewhat more costly than inferior guardians and poorer food would have been, have yet been profitable to the patients, and, through them, to their families and the State.

Regarding the earnest suggestions of some members of the legislature in 1863, the Trustees requested the Superintendent to try the experiment of a poorer and a cheaper diet for the State paupers, and to give them a sustenance something like that allowed at the State almshouses. The experiment was tried faithfully for several months, and the daily condition of the patients carefully watched. But the

result as a matter of economy was unfavorable. The patients were more irritable and discontented, the excitable were less easily controlled, the languid drooped more, the torpid were more indisposed to action, the wards of the maniacal patients were more noisy and those of the demented made less show of life, and all the insane propensities and proclivities seemed to gather new force and to be less manageable in the hands of the officers and attendants, the curable made less progress and the incurable were more intensely disordered.

What ever might have been gained in the diminished cost of food, was manifestly more than lost in the slower progress of recovery, in the prolonged duration of the mental disorder, and in the probable failure of some to regain their health who might have been restored, if allowed to enjoy that better diet which the necessities of their morbid condition required.

The experiment was given up as a failure. The usual generous diet was again given to these patients, and they soon began to show its effects in their improved condition and better progress.

COST OF BOARDING SANE PERSONS OUT OF A HOSPITAL.—In order to compare the cost of supporting the insane, with their peculiar liabilities and necessities, with the cost of supporting sane persons of similar classes elsewhere, your memorialists have made inquiry, through discreet and trustworthy agents, and ascertained the prices charged and paid, both at the present time and three years ago, before the cost of the materials of living had advanced, in all classes of cities and towns, throughout the Commonwealth, for board, lodging and washing, of several classes of persons.

1. Irish laborers boarding with Irishmen—the lowest and cheapest board.
2. Journeymen mechanics, who want a better and more comfortable manner of living.
3. Clerks, teachers, overseers, who look for and enjoy a more elegant style of life.

The following table shows the result of this inquiry :

PLACE.	Autumn, 1864.	1860-1.	Autumn, 1864.	1860-1.	Autumn, 1864.	1860-1.	Autumn, 1864.
Hoosac Tunnel,	\$3.50@4.00	.....	.....	.....	.....	.....	.....
Williamstown,	3 50	.....	.....	.....	.....	.....	.....
Pittsfield,	4 00	\$2 50	.....	\$3 00	\$8 00	.....	.....
Great Barrington,	4.20@4.50	3.00@3.75	5.00@6.00	4.00@4.50	7 00	5 00	.....
Greenfield,	3 50	.....	4.50@5.00	.....	5.00@6.00	.....	.....
Northampton,	2 75	1 75	4 50	3 50	7 50	5 50	.....
Springfield,	3 00a	2 50a	7.00@7.50	4 00	7.00@7.50	4 00	\$3 50c
West Springfield, . . . . .	.....	.....	3 50	2 50	4 00	3 00	.....
Barre,	3.00@3.25	1.75@2.25	3.25@3.75	2.00@2.50	4.00@4.50	2.75@3.25	3.00@3.50d
Fitchburg,	4 00	2.25@2.50	4 50	3 00	4 50@6.00	3 00	1.75@2.25d
Leominster,	4 00	2 75	4 00	2 75	5 00	3 00	.....
Lancaster,	3 00	2 50	4 00	3 00	8.00@10.00	7 00	.....
Clinton,	3 00	2 50	4 00	3 00	5.00@5.50	3.50@4.00	.....
Worcester,	4 00	.....	4.00@5.00	.....	5.00@6.00	.....	.....
"	4 12	2 75	4 50	3 00	4.50@5.25	3.00@3.50	.....
Milford,	3 50	2.00@2.50	4.00@4.50	3.50@4.00	5.00@5.50	3.75@4.00e	3.00@3.50e
Groton,	3.50@4.66	.....	6 00	.....	5 00a	4.50@5.00f	.....
Lowell,	2 75	2 00	3 25	2 25	3 75	2 75	.....
Amesbury, . . . . .	.....	.....	.....	.....	.....	3 50@4.00	.....
Newburyport,	4 00	2 50	5 00	3 50	6 00a	2.50@2.75h	1 50k
Salem,	3 50	2.00@2.50	4 00	2.75@3.00	7.00 & over.	5 00i	2 50l
East Cambridge,	4.50@5.00	3 00	5.00@6.00a	.....	6.00@9.00	4 50j	.....
Boston,	4.00@5.00	2.75@3.33	5.00@6.00	3.33@4.00	5.00@8.00	3.50@6.00	4.00@5.33k
"	3.50@4.00	2.00@3.00	4.50@7.00	3.00@4.00	5.00@7.00	3 50	3.50@5.00
"	4 00	2 75	4 50	3 00	7.00@8.00	6 00	4 00
Dorchester,	4.50@5.00	3.00@3.50	5.00@7.00	3.00@5.00	7.00@8.00	5.00@7.00	.....
Milton,	4.50@5.00	3 00	4.75@5.00	3 00	7.00@8.00	4.00@4.25l	2.75@3.00l
Quincy, . . . . .	.....	.....	5 00	3.00@3.50	.....	.....	.....
Randolph,	4 75	2 50	4 00	2 75	5 00	3 50	.....
New Bedford,	3.50@4.00	2.00@2.50	4.50@5.00	3 00	6 00	2.50@4.00	3 00k
Fall River,	4.25@4.75	2.25@2.75	4.50@5.00	3.00@3.50	5.50@6.00	4.00@5.00	.....
Westfield,	3 50	2 00	4 50	3 00	5 00	3 00c	2 00c
Waltham,	3 75	2 25	4.00@4.50	2 50	5.00@5.50	2 50	1 50
Dedham,	3 50	2 00	4 50	2.75@3.00	5.00@6.00	3.00@4.00	.....
Average of all,	\$3 87	\$2 51	\$4 77	\$3 19	\$6 08	\$4 41	.....

a Without washing.
 b Irish Men.
 c Female operatives.
 d Female Palmleaf Workers.
 e Irish Mechanics.
 f Academy Scholars, without washing.
 g Operatives.
 h Female Operatives, without washing.
 i Normal School Girls, without washing.
 j Female Teachers, without washing.
 k Sailors.
 l School Teachers, Females.

The competition of boarding-houses brings their prices down to the lowest living rate. Their keepers usually charge very little beyond the cost of the materials consumed, the rent and a fair reward for labor.

The hospital pays no rent directly. This is not known in its articles of expenditure. Yet it makes all the repairs, all the renewals of furniture, stock and materials that decay or are worn out, and nearly all the improvements at its own cost. The cost of these, being divided among the household, would be equal to about half the amount for each that is paid for rent in ordinary boarding-houses. With this exception, the low or half rent, the hospital buys and offers to its boarders all that is provided for the inmates of boarding-houses elsewhere. To this comparative expenditure, must be added the greater cost for a larger quantity and superior quality of food, the large and intelligent and costly corps of attendants, which are not needed in boarding-houses, and physician and superintendence, which are not supplied to boarders in ordinary life, without large cost.

It cannot then be supposed that these means of living, of protection, nursing, watching, professional attendance, can be obtained and given to the insane residents in the hospital for the same cost that mere food, lodging and washing, are provided for in the cheapest boarding-houses; still less can they be provided at a lower cost. On the contrary, they inevitably cost more than the materials and labor that boarders usually receive and enjoy, in the families out of the hospital.

Yet in only two of the towns, in which the inquiry was made, did even Irish laborers obtain their board for as small a price as the Commonwealth offers for the board, care and healing of its paupers, in the hospital. Except in these two towns, the charge was universally more than \$2.75 a week, and in most of the towns it was very much more, and the average of all, was \$3.87 a week, which is forty per cent. higher than the State payments for the whole support and professional treatment of its insane wards.

The board of journeymen mechanics, is in all cases higher. The lowest is eighteen per cent. higher. The highest is one hundred and seventy-two per cent. more, and the average of all is seventy-three per cent. more than is paid by the State.

It should be farther stated that most of these inquiries were made in September and October last, since which time there has been a still

farther advance in the prices of provisions, which must have caused a corresponding increase in the charges of these boarding-houses for the board of their inmates.

PHYSICIAN IN CHIEF OF AN ASYLUM.

We deem it particularly essential at this time that the principles involved in the superintendence of asylums for the insane should be properly understood. The necessity that the authority should be single and supreme in such establishments is recognized by all "masters of the science." The occasion is a fitting one for reproducing the arguments advanced in support of this arrangement, and for this purpose we shall quote from the writings of three distinguished alienists.

In a letter from the late James Macdonald, M. D., (formerly Superintendent of the Bloomingdale Asylum) proposing a plan for organizing the New York State Lunatic Asylum, and addressed to the Hon. David Russell, President of the Board of Trustees,* Dr. Macdonald expresses these views :

As the supreme object of the institution, to which everything in its construction and government directly or indirectly tends, is the improvement and recovery of the insane ; I propose that the *physician in chief*, who may also have the title of DIRECTOR, shall be its first officer, the *head*, in name and in fact, of the whole establishment, so that all other officers, under the board of the trustees, shall be subordinate. The physician and director should be the mainspring of the whole machine, the master spirit of the entire institution. As he is to exercise such high functions and to originate and direct the treatment, medical, moral, physical and dietetic of a thousand insane minds, he should be held responsible for the results, at the same time that he should be invested with sufficient authority for the execution

* Report of Trustees of the State Lunatic Asylum, with the documents accompanying the same, pursuant to the Act of the Legislature, passed May 26, 1841.

of his plans. He should have power to hire or dismiss all subordinate persons in the employ of the institution; and all superior officers should be so far under his control as to receive instructions from him.

The adoption of this part of the plan will prevent a division of interests, and keep one part of the household from arraying itself against the other, and if properly used will make everything tend to one point, the comfort and restoration of the insane. If it confer upon one individual increased authority, it imposes additional obligations. His direct responsibility for the welfare of the institution and the conduct of its other officers must check any abuse of power.

I would not say more on this subject, if it had not been the practice in some asylums to place the physician on a footing with and even subordinate to other officers. Happily, however, this anomaly is vanishing before the progress of sound principles, but to sustain the position here laid down, I beg leave to quote the highest authorities of Europe. Pinel, one of the most illustrious names of France, in medicine and philanthropy, says: "Whatever may be the principles on which an asylum is conducted, whatever modification it may receive from time, locality, and different forms of government, the physician, by the nature of his studies, the extent of his knowledge, and the strong interest which he has in the success of treatment must be so well informed as to be the natural judge of everything that passes in a hospital for the insane." Jacobi, the experienced and distinguished physician of the large asylum at Sieburg, in Germany, says: "As every operation in this department, also (that of steward) must concur with the rest in promoting the ultimate object of the establishment, and as the most perfect unity of purpose and unimpeded activity must everywhere characterize all the exertions made to this end, so it is here again evident that the supreme direction and control of all the officers and servants without exception employed in this department, must likewise be concentrated in the directing physician." Esquirol, the highest authority of the age in which he lived, says: "The physician should in some manner be the vital principle of an insane asylum; it is by him that everything must be put in motion; called as he is to be the regulator of all thoughts, he directs all actions. Everything which interests the inmates of the establishment points to him as the centre of action. The physician should be invested with an authority from which no person can escape."

Such then being the high responsibilities of a physician to a lunatic

asylum, he should be carefully relieved from every duty calculated to direct his mind from its legitimate objects of pursuit. He should not be burdened by any financial responsibilities ; should have no concern in the purchase of supplies, except to indicate such as may be requisite ; should not for a moment be wearied with their distribution, and in fine, should not have his attention diverted by anything from the high duties of his office. To supervise in the most cursory manner the material part of the establishment, to devise methods for the comfort and improvement of a thousand human beings deprived of the ability to take care of themselves, to observe minutely and treat medicinally such of the number as may be proper subjects for medical treatment, to adapt occupation, amusement and moral discipline to all, will require on the part of the physician and director the greatest industry and system. But the duties of the physician to a lunatic asylum do not end with the performance of his daily visits ; he has also professional duties to discharge. Placed in an extended field of observation, he can collect facts which may be of immense service to his medical brethren. In the performance of these varied and important functions, it is evident that he must have the aid of efficient medical assistants.

In a report on the Organization of a Lunatic Asylum, prepared for the information of the Prefect of the Department of the Seine, the author, Dr. Renaudin, remarks : *

Masters of the science have always agreed on laying down the principle that the administration of an asylum should be essentially medical ; and that, consequently, a physician must be the sole governor of that colony of which the members, become foreign bodies in society, are called to constitute a society *sui generis*, into which each brings the contingent of his previous aptitudes (antecedent dispositions.) It is the medical judgment which directs these dispositions, and from the moment when the physician confines the potentiality of direction to himself, he cannot fulfil his high mission except in the condition of being the real head of the medico-administrative service.

To place an institution of this kind under non-medical government would, in my opinion, constitute an anomaly as striking as the appoint-

* Medical Critic and Psychological Journal, Vol. II. page 176.

ment of a priest to the command of a regiment, or of a colonel to the tutorship of a seminary.

In Germany and Italy this truth has long been an axiom. And if, in France, general inspection has given to the service the impulse of which we now prove the excellent results, it is because it has been, and still is, entrusted to eminent alienists, who have *medicalized* administrative science, and have adapted it to the numerous indications of psycho-curative knowledge. Physicians are substituted for the charitable but uninstructed administration of religious communities, and everywhere the direction of the insane has beneficially experienced this important reformation.

If management has been improved by the breath of science, the latter, in its turn, has become much more practical by its connection with administrative forms. In place of being misled by vague theories, the administrative physician (medical director) is in closer proximity to his patients, knows them better, appreciates their wants and forms his deductions from facts well observed rather than from preconceived theories, too often falsified by experience. A mass of arguments demonstrate the truth of this assertion, for it is from medical directors that the most practical and most important works have emanated. Their position has admitted of their separating the romance of the disease from its history. It is they who have best delineated insanity by stripping it of its stage-dress; and if their works have not had much notoriety, it is because these practitioners, exclusively devoted to their duties, are less concerned for the care of their reputation than for the welfare of the invalids who are entrusted to them.

These remarks already foreshow how far the medical service of asylums must differ from that of ordinary hospitals. In the latter, it is a simple episode incident to the existence of the physician; in the former, on the contrary, it absorbs the whole life of the practitioner, who cannot know his patients except by dwelling among them, and whose habitual residence in the establishment is an essential element of that moral hygiene so important at the present day. In like conditions, the administrative functions, instead of being an additional burden, are, on the contrary, a powerful auxiliary of the treatment, if the organization correspond with the fixed requirements of the duty.

Of the personnel of an establishment for the insane, Dr. Henri Falret discourses as follows : *

Everything which concerns the insane being intimately connected, all the measures which the administration may take being of a nature to influence the morals of the patients, all the circumstances by which they are surrounded constituting an essential part of the moral treatment, there can not be, in an establishment for them, without serious inconvenience, any other authority than that of the physician.

Thus, in leaving to the minister of the interior the right of separating the administrative and medical powers, and of appointing the superintendents and the physicians ; the law of 1838, otherwise, taken as a whole, so eminently useful, has, in this respect, been very injurious to asylums for the insane.

Notwithstanding the evil consequences of this separation of power, which has become a source of continued conflict and struggle, the authority has none the less persevered in separating that which admits of no separation, and even lately, we have noticed the appointment of a superintendent over the establishment of Fains, where, hitherto, the two powers had been united in the hands of the physician. It is with a great deal of pain, that we have seen in a recent decree, which threatens to be so fatal to asylums, that the government not only endorses anew this principle, but even assigns an inferior situation to the physician, in leaving to the prefect the power of appointing him, and reserving all rights to the superintendent.

If all those employed, without exception, are not under the control of the physician in all that concerns the establishment, there can be no unity of purpose, and without unity, it is impossible to establish a durable and beneficial organization ; if the persons employed are not convinced of the supreme authority of the physician, if they recognize a rival or superior power, their concurrence will be weak and vascillating, their conduct ever wrong, the order of the establishment constantly compromised ; and in the midst of this division of power, the insane will want the direction and advice so indispensable to them, and will find means of evading the prescriptions of the physician or the different regulations, instead of refraining from their propensities, and exercising a salutary control over themselves.

We have only to examine what takes place in French asylums,

* *Journal of Insanity*, p. 422.

where the physician is not the superintendent, to be convinced of the necessity of uniting all power in the hands of a superintending physician; the nature of things, still more than individual character, gives rise to continual conflicts and quarrels between the physician and the superintendent, which terminate ordinarily in the removal of one or the other, the same trouble soon to recur with similar results.

In Germany, the two powers are united in the physician, the happy effects of which are continually visible. Why should it not be the same in France? Why should some asylums still have a superintendent and a physician, while others have already a superintending physician?

It is asserted that if the duties of the principal physician and superintendent are united in the same person, the superintendents are liable to be inferior, or the physicians but little versed in the theory or practice of their art. It is also said that this system may be applicable to small, but would not be for large establishments, because too great an amount of labor would be intrusted to one individual. All these objections are not serious; if one can not be at the same time a good administrator and a good physician, why should the direction of some asylums be entrusted to physicians?

To be consistent, then, it would be necessary to suppress completely superintending physicians. But how do the Germans manage, who have at the head of their establishments physicians so distinguished as Roller, Jacobi, Damerow, Flemming, etc., who are at the same time excellent superintendents?

As to the extent of work, it is easy to remedy this, by giving to the chief physician subordinate auxiliaries; unity of direction is thus left to him, and the difficulty of having his commands executed, removed.

PROVINCIAL LUNATIC ASYLUM, TORONTO, C. W.—The original plan of this asylum contemplated a centre building, two front wings and two parallel receding wings. On the completion of the central edifice and the front wings, the building was thought to be large enough for the wants of the Province, and the work was suspended. A short time, however, sufficed to show the need of further accommodation for the insane; and to meet this want

Dr. Workman, the Medical Superintendent, has never failed to urge the completion of the building. Instead of listening to the Doctor's appeals, supported as they were by unanswerable arguments, the authorities adopted the miserable expedient of separate establishments for the incurable. Some abandoned wooden "barracks" and an hotel "on a grand scale," originally intended for a summer resort, buildings totally unfitted for the purposes, were metamorphosed into asylums. In this action of the Canadian Government we have a good example of that specious utilitarianism which always looks to primary outlay, and which draws its inspiration from the deep philosophy epitomized in "penny wise and pound foolish." But experience is the best teacher for governments as well as individuals. The Canadian authorities have been brought, at last, to see the error of their ways, and the folly of a makeshift policy. Dr. Workman is now authorized to proceed, at once, with the completion of the Provincial Asylum at Toronto. To our mind this action of the Colonial Government is a virtual condemnation and renunciation of the policy of separate establishments for the incurable.

We heartily congratulate Dr. Workman upon the final success of a project for which he has most zealously labored for many years, and we trust that the liberality of his government will enable him to apply those modern improvements in asylum construction which he so fully appreciates and is so competent to introduce; particularly, the great sanitary appliance of forced ventilation, by means of a fan, by which, irrespective of atmospheric conditions, each patient may be supplied with a known and abundant quantity of fresh air at a properly regulated temperature.

WEST VIRGINIA HOSPITAL FOR THE INSANE.—We are indebted to Dr. R. Hills for the following statement of the institution of which he is the recently appointed Medical Superintendent :

The building, when completed, will have accommodations for two hundred and fifty patients. Its entire length will be twelve hundred and fifty feet. Its cost about \$450,000, of which \$150,000 have already been expended. One wing of two hundred and fifty feet is finished, and is now occupied by forty patients. The basement of the whole building is completed, and also the first story of the main edifice from the centre to the finished wing. During the present year the work has been restricted chiefly to out buildings, boiler-house, laundry, barn and ice-house. Next year it is proposed to complete the main building and one-half of the centre. For this purpose an appropriation of \$100,000 will be required. Dr. Hills writes : “ We have been filled since early in the spring, and nearly all applications are necessarily declined. Of these there are many ; besides which there are over one hundred West Virginia patients in the asylum at Staunton, and some thirty or forty at Williamsburg, all of which will be admitted here when we have the room for them. The building is of cut free stone, a beautiful greenish blue color—Elizabethan style of architecture, first story ‘rustic,’ upper stories ashlar.”

As journalists advocating, as we believe, the real interests of the insane, we enter our protest against the extravagance just recorded. Here is a State, young and enterprising, it is true, and with great resources for the future, but with a population of less than 400,000, and just emerging from the perturbation and despoilment incident to a state of civil war—expending in a hospital for its

insane nearly double the amount, per patient, allowed by the most liberal estimates for first class institutions in Europe and America. Such instances of prodigality furnish the tax payer and legislator with a powerful argument against the erection of new asylums. The argument, however, is not valid, because such extravagance is entirely unwarranted, and should be discarded. We trust it is not yet too late for the new State of West Virginia to reform her asylum programme, and to substitute in place of her present policy, *juste milieu* equally removed from unthrifty squandering on the one hand and shabby parsimony on the other.

We may, in passing, call attention to the curious fact that the Medical Superintendent of an asylum designed for 250 patients, and which is to cost \$450,000, is one of the only two gentlemen found bold enough, at the last meeting of the Association, to defend and urge the establishment of *cheap* institutions for *pauper* incurables.

RAILWAY TRAVELLING A CAUSE OF DISEASE.—The influence of railway travelling on cerebral, spinal, nervous and ophthalmic diseases, is assuming an interesting shape in the public mind of Europe; so much so that committees, consisting of professional men occupying the highest positions in science, have been appointed to investigate the subject. In England, such a commission was formed to determine the influence of this mode of travel on health, but the evidence *pro et con*, is without conclusive results. Some observing that persons accustomed to daily and constant travelling in rail coaches grew rapidly old, drew the conclusion that it was productive of injury; while others noting mortality statistics showing that the mortality of post-office employees on railway cars was not greater than that among the same class stationed in the offices of cities, infer that it is not antagonistic to life.

The comparison, it will at once be seen, is incorrect, for it cannot be a question whether confinement in closed offices is injurious and tends to lessen the life actions, compared with that allowing a certain

amount of out-door exercise. Free air and exercise are essential to life. The question is, whether the habit of travelling in closed coaches, with the constant effort of the muscles to break the shock of the sudden and abrupt vibrations of the cars, and the rapid passage of objects before the visual organs, has a tendency to derange function and alter structure.

Is railway travelling prejudicial to health? The evidence is somewhat conflicting. Dr. Lewis, a medical officer of high standing, presents a large number of cases showing that continuous and extensive travelling in this way does not affirm the question. He arrives at the following conclusions:

1. That well-developed and robust persons do not suffer injury if reasonable care be observed in their habits, and if the amount of travel is not extreme.

2. That railway travel has a greater injurious action on persons who enter upon this mode of travelling after the age of twenty-five, than upon those who commence it earlier in life.

3. Persons loosely formed, who are affected with disease of the head, heart or lungs, suffer most.

In regard to its ill effects on the visual organs, Mr. Cooper and others consider its action very great; while Dr. Lewis esteems it of slight importance. *A priori*, it may be admitted as a fact that reading while a coach is in motion, or placing the eye upon an unsteady and swiftly-passing object, causes an inordinate effort of the organ, and a consequent diminution of power.

Its influence on the respiratory organs is a matter of no small importance when we consider the evil consequences of the *impure air* of a densely crowded coach, and the sudden change of temperature caused by opening windows when the train is in motion. Experiments made by Dr. Angus Smith show that the air of a crowded car corresponds to the air of his laboratory when a sewer was allowed to pass through it. This great impurity produces a necessity for an increased amount of air to enter the lungs to furnish the normal supply of oxygen. This action causes excessive effort and increased exhalation from the cutaneous surface, which, upon exposure to a current of cold air, is checked, resulting in bronchial and respiratory diseases.

The most serious and frequent effects are, however, upon the nervous and muscular systems. The constant effort, during a long journey, against the abrupt and often extreme change of positions, throws upon these systems abnormal activity. The result is weariness.

ness, pain and soreness for days after the effort, and a sensation of unsteadiness even amounting to sea-sickness. This abnormal action, though it may be quiescent in its action for a time, at last induces alteration of structure, sometimes ending in paralysis.

The rapid age in which we live, appears to be specially characterized by its utilitarian system at the cost of what is useful and good. Economy of time, of thought and of money, is apparently essential to successful competition, and brings upon us a commensurate expenditure of comfort, health and life.

The present mode of travel is a commercial economy, but the old-time way, while certainly slower, was perhaps not less certainly a real economy of time. The fashions of life appear to quadrate its longevity and influence.—*St. Louis Med. and Surg. Journal.*

USE OF ERGOT IN CHOREA.—Dr. Jacobi related the following case he had recently treated: A girl 10 years old, had been under his care for pneumonia, and afterwards for bronchitis, but has, during the past year, been healthy. Five weeks ago she was brought to him, suffering with intense chorea, not being able to walk or sleep, and hardly to swallow, and with no cessation in the movements during sleep. She was feverish, with hot skin, thirst, rapid pulse, etc. The spine was examined and no excessive sensitiveness was detected in the lumbar or lower dorsal regions; but over the first dorsal vertebra, and increasing in severity on ascending the cervical region, there was tenderness. The chorea being due to irritation of the spinal cord and cerebellum, the cervical region was leeches, and ice applied for three or four days, when the girl began to improve. The ice was now continued for a week longer, and a strong purgative given with marked benefit. Afterwards, as the Doctor has seen good effects from ergot in spinal meningitis, he administered it in this case and in large doses. At first, half an ounce of Squibb's fluid extract was taken daily, in combination with sulphate of soda, and latterly but two drachms, with ten grains of quinine per day, continued for two weeks. The girl is greatly improved, being able to walk with assistance, and to eat and talk. Dr. Jacobi remarked, that the majority of cases of chorea occur in girls between 6 and 11 years of age, and that it is generally impossible to trace the symptoms to any local affections, except to rheumatic disease of the heart. If no rheumatic or cardiac trouble can be found, the spine and cerebellum are examined, but generally with like result.

Dr. Gonzalez Echeverria stated that he had seen a case in which there was pain in the cervical region of the spine, with most violent choreic convulsions. The patient died, and, on post-mortem examination, apoplexy in the spinal-gray substance of the cervical region of the cord was found. (The history of this case has been reported in detail in the April number of this Journal.) The Doctor also related a case of chorea, mostly located in the right limbs, in a pregnant woman he had seen in consultation with Dr. W. H. Van Buren. The disease was preceded by sudden hemiplegia, occurred upon protracted lactation, but which nearly subsided, until the development of the choreic convulsions at the beginning of gestation. The sensibility of the limbs was evidently diminished, and the patient showed a tendency to cerebral congestion, which made once necessary the application of leeches to the back of the ears. The urine contained no casts, once or twice was slightly albuminous, but kept throughout its normal condition, with the exception of an increased quantity of phosphates. The state of the patient continuing to be alarming, and appearing to depend in a great degree on gestation, premature labor had to be induced at about the eighth month. This operation was skilfully carried through by Dr. George T. Elliot. The nervous symptoms did not, however, materially abate. The patient was then put upon the use of ten grains of bromide of potassium, three times a day; the remedy was soon discontinued on account of pain in the stomach, which the patient attributed to it. She was then directed to use ergotine gr. j., with quinine grs. ij., twice a day, and to resume the bromide of pot. mixed with the tr. rhei., and carbonate of ammonia. Under this treatment she decidedly improved: the ergotine was carried up to grs. xij. a day, and then discontinued, but the bromide of potassium has been kept up to the dose of thirty grains, three times a day, with the carbonate of ammonia, and half an ounce of the infusion of calumbo. Cold bathing, application of ice to the spine, and the localized movement cure, were employed in addition to the above means. Uterine disease having been suspected all along, the patient at last consented to be examined with the speculum. Besides retroversion, a large ulcer of the neck and enlargement of the womb were found, together with leucorrhœa and the dysmenorrhœa already complained of by the patient. A local treatment has been instituted for these latter symptoms, and the patient's improvement has continued beyond the stationary point it seemed to reach with the above means. Let me add, that the child, now over a year,

has grown very robust, and to this date free from any nervous derangement. It is true, that in this case ergot was not the only remedy employed, but I have used it mainly in other cases of chorea, with similar good results to those mentioned by Dr. Jacobi. I generally prescribe the Aq. extract of ergot, or Bonjean's ergotine, in the shape of pills, combined with quinine and the extract of conium added, to prevent the pain which ergotine is apt to cause on the digestive organs. The largest doses of ergotine I have prescribed have been from eight to fifteen grains a day, the latter dose having been employed with adults.—*New York Medical Journal*.

AMENORRHŒA.—The history of ovulation has supplied M. Raciborski with a new field of inquiry, which he has laboriously cultivated, and in which he has succeeded in discovering new physiological aspects unknown to, or at least not described by, his predecessors. Amongst other interesting subjects, he expatiates on a form of amenorrhœa due to mental causes, such as excessive dread of pregnancy, or, on the contrary, an inordinate desire of bearing children. (*Archives de Médecine*, May, 1865.)

In the male mental preoccupation greatly influences the procreative function. Montaigne, in his remarks on the power of imagination, relates an instance of transient sexual incompetency, of which, in all probability, he had himself been the subject. Incapacity of this kind is of frequent occurrence, and inspires no anger to a sensible wife, aware that kindness will prove far more successful in restoring power than bitter reproach and offensive expressions of scorn. The physiological explanation of this unsatisfactory condition is simple. In consequence of the apprehension of failure, the mental frigidity is conveyed by the sympathetic system of nerves from the brain to the organs of generation, and the result is an entire cessation of their powers of expansion. Under the influence of the vaso-motor nerves, the blood vessels of these organs contract, the temperature of the part is lowered, and a condition ensues in which sexual access becomes impracticable.

M. Raciborski, arguing from analysis, opines that the excessive dread of pregnancy, or the immoderate desire of bearing children, act on the female in a somewhat similar manner, and may induce more or less delay in the appearance of the catamenia, and even a protracted state of amenorrhœa.

This author was consulted on several occasions by women who,

after a long struggle, had yielded to their feelings and forgotten their virtuous resolutions. Alarmed at the possible consequences of their imprudence, and living in perpetual terror of pregnancy, they impatiently counted the days which must intervene before the return of the menses, and anxiously watching for the usual premonitory symptoms, awaited in a state of most distressing perplexity the time at which their worst fears might be allayed or confirmed. In a case of this kind, a lady, usually perfectly regular, was thrown by a delay of one week into a state bordering on insanity. The treatment adopted by M. Raciborski consisted in arguments calculated to remove her fears, to which he mainly attributed the alarming postponement of the catamenia, and in the exhibition of harmless remedies. He prescribed gentle anodynes, and the mildest form of stimulants, such as a few drops of liq. ammon. acetatis in lime-flower, or black-currant tea, and mustard foot-baths. After an interval of two days, the menses reappeared, and the delighted patient solemnly declared that the lesson would never be forgotten.

On the other hand, M. Raciborski asserts that too ardent a wish for children may also act in a reflex manner on the vaso-motor nerves of the ovaries, and induces amenorrhœa.

"In young married women," says he, "it is not unusual to observe at several successive monthly periods a delay of a few days before at last they become really pregnant. These delays are, in a certain degree, referable to a strong desire to have a family. When, however, several months have elapsed without any sign of this much wished for result, the anxiety on the subject often becomes excessive; and constantly preoccupied with one idea, that she may be sterile, the young wife feels happy when, at the return of the date at which the menses may be expected, she experiences none of her customary symptoms; she hopes that the catamenia may fail, and that at last she is pregnant. At each monthly period she is agitated by the same hopes, and, to avoid a disappointment, submits to all manner of precautions. Between this kind of amenorrhœa and that we have previously described, a considerable difference exists. In the former, when the patient dreads pregnancy, every effort is made by her to bring on menstruation, which, in general, reappears in the course of a few days. In the latter, on the contrary, all the precautions taken to prevent the frustration of cherished hopes, the absolute repose joyfully submitted to, the complete abstinence from any cause of mental or physical excitement, all contribute to perpetuate the modified con-

dition of the ovarian circulation, and to protract the duration of the amenorrhœa. The greater number of the cases of what has been termed *Grossesses nerveuses*, recorded by various authors, have no other origin, and are almost invariably instances of protracted amenorrhœa referable to this cause."

M. Raciborski relates an interesting case in point; but his remarks on the variety of amenorrhœa *due to the apprehension of pregnancy* appear to us original, and deserving of the attention of the practitioner.—*Medical Circular*.

CEREBRAL AGENESIA.—Dr. Peebles mentioned (January 14,) at a meeting of the Dublin Pathological Society that the case which he had the honor to bring under the notice of the society was one of cerebral agnesia. It had excited some interest at the other side of the Channel, where he believed a true diagnosis of it had not been made. He was happy to say that a distinguished member of the society—Professor Law—was the first who stated its real nature. The subject was a girl aged nine years and ten months. Up to the age of eleven months, she was considered to be remarkably healthy and well formed, and presented no appearance of paralysis. About this time a general practitioner prescribed low diet, with small doses of grey powder, for a feverish attack accompanying dentition. Soon after, for a slight cold, he directed tartar-emetic, and also two leeches to be placed on the dorsum of the foot. The low diet to be continued, and the leech-bites to be sponged with warm water to encourage bleeding. The attendants found it impossible to arrest the hemorrhage, and convulsions, followed by coma, were the result. Further advice was obtained, and then the head and spine were blistered. At this time the parents of the child, who had been from home, returned, and succeeded in getting some beef-tea, etc., into the stomach. Reanimation slowly returned, but it was found that all power of voluntary motion was absent. In the course of a year the left side recovered, but the right continued paralyzed. There was some difference in the thickness of the limbs, but none in the length. She now began to walk, dragging the right leg; and from want of power in the side met with several severe falls, the head generally coming to the ground with violence. On one occasion she fell out of bed head foremost; this was followed by epilepsy, which continued up to her death. At first the fits came on every ten minutes during the twenty-four hours. Afterwards they decreased in number, but

increased in violence. The approach of a fit could be predicted by the development of mischievous propensities—a tendency to torment animals, or to strike people when they least expected it, and by considerable cunning. There was no scream before the fit. She always gave notice when it was coming on. The tongue was never bitten. There was a discharge of fetid perspiration, and seldom any dulness or drowsiness when the fit subsided. Her mental capacity was of the average; in some matters she was very intelligent, and had made some progress in her education.

She had been seen by various medical men, who attributed her ailment to either the loss of blood causing the development of tubercle in the brain, or to atrophy of the brain from the same cause. At the age of six years the left side again became paralyzed, as well as the right; but under tonic treatment the power over it returned. In last September Professor Law happened to be in the neighborhood of where she was, and expressed a desire to see her. He was at once struck with a slight want of symmetry in the sides of the head, although measurement showed no difference, and pronounced it to be a case of congenital malformation of the left lobe of the cerebrum, similar to those which Professor Smith had brought before the society on several occasions. He (Dr. Peebles) first saw the child about two months ago, when she came under his care. Up to that time she had been able to walk three or four miles in the day with the assistance of a servant to hold her hand. There was no difference in the thickness of the limbs, as she had grown tall and thin, but the heel of the right side was raised from the ground by the contraction of the ham-string muscles. The right arm was kept in the flexed position, with the hand hanging down; but by a strong effort of the will she was able to use it for various purposes. This, however, did not last long, the strength seemed to leave it very soon. There was a peculiar bulging of the right side of the forehead, and the right cheek was drooped.

Although there was considerable power of voluntary motion in the right side, the galvanic stimulus did not appear to have any effect on the muscles, and wasted as they were, their contractive power in a fit was very great.

During the damp weather in November symptoms of inflammation of the membranes came on, quickly followed by those of effusion; but no pain was ever complained of, except a deep-seated one between the eyes.

She lingered for six weeks. Diarrhœa set in, and bed-sores appeared wherever there was the least pressure, even over the left malar bone, where the cheek rested on the pillow.

As Professor Smith is our chief authority on this affection, and as the case differed in some respects from those which he has published, I requested him to make a post-mortem examination. He (Dr. Smith) says: "The right side of the forehead and of the head generally seemed more prominent and bulging than the left. On removing the calvarium, and making an opening through the dura mater, a large quantity of serum flowed out; and on removing the dura mater a layer of recently-formed coagulable lymph was seen covering nearly the entire of the left hemisphere of the brain. A similar material, mixed with serum, filled the sulci between the convolutions of the brain on the left side. The left hemisphere was much smaller than the right, more especially in front, the anterior lobe of the right side projecting at least half an inch in front of that of the left side. On making a vertical section of the left hemisphere a cavity or cyst was found in its substance, capable of holding a filbert. It was filled with serum, and lined by a dark brown membrane. The membranes of the brain adhered closely to that portion of the surface of the hemisphere that corresponded to the cyst. The latter was evidently the consequence of an original arrest of development, as was also the shortness of the left anterior lobe, and the generally small dimensions of the convolutions. The roof of the left orbit was much more prominent, internally, than that of the right, and the crista galli was strangely deformed. It was enlarged and curved in such a manner as to be placed to the left of the middle line, and nearly obliterate altogether the fissure for the passage of the nasal nerve."

This case differs from those which have been published by Professor Smith and others, in the absence of rigidity, and in the degree of voluntary motion in the affected side—in the fact of the cyst or deficiency being in the substance of the brain, and not connected with the ventricle; and in the amount of mental development which was equal to the average of children of the same age. The peculiar appearance of the crista galli closely resembles the delineation in the plates published by Professor Schroeder Van der Kolk of his case of atrophy of the left hemisphere of the brain. The roof of the left orbit was also altered in the same way, but the resemblance goes no further. In his case the calvarium was thickened; in this case it was, if anything, thinner than natural. Measurement showed no differ-

ence in the sides of the skull; the space where the brain was deficient was filled with serum.

There was no appearance in the brain to account for paralysis on the left side. In the first attack the loss of power on that side was evidently the result of great prostration, as it was, most probably at the second attack, for at that time she was exhausted by diarrhœa and hectic fever.—*Dublin Quarterly Journal of Medical Science.*

INFANTILE PARALYSIS.—Dr. W. Adams mentioned (March 16,) at a meeting of the Harveian Society of London, that he had frequently had to treat cases of this affection, and that in some instances he had been able to restore the power of locomotion where it had been supposed to have been irretrievably lost. Infantile paralysis came on frequently during teething, at the age of one or two years. Both legs or both arms are paralyzed suddenly or in the course of a few hours, or only one limb may be affected. Sir B. Brodie used to say that unless this paralysis is naturally recovered from in six months, it is hopeless. In three to six months there is usually the greatest amount of recovery, the rectus muscles of the thigh often being last to recover. As to the pathology of the disease, Mr. Adams confessed that he knew nothing of it. The most recent German writers on the subject attribute it entirely to the muscles; and Rilliet and Barthez recorded only two post-mortem examinations. In these, as well as in the one made by Mr. Adams, no appearance could be made out to account for the disease, and children do not die of it. Consequently the cause of it is not investigated. If practitioners were but aware of this fact, they would probably make the necessary examinations. It must be remarked that natural recovery of the muscular powers may progress from six months up to three or four years, during which time a series of events take place—namely, contraction of all the joints. Mr. Wilkinson had lately brought him a child with great contraction of the knee-joints. The muscles around the hip-joints are usually the first to recover. A child was sent him from Clifton, of the age of from six to seven, which had never stood. It had contraction of the joints, arms, legs, and trunk, and Mr. Adams was able to promise the parents of the child that it should walk in three months. Dr. Brown-Séquard had requested Mr. Adams to see a young lady, aged seven years, in consequence of paralysis of both legs, and in three months this child was able to walk with steel supports. If a child could use the psoas and iliacus muscles, it could be

made to walk, and this was the practical test. It should be laid down upon the floor, and if it can draw up its knees, success is certain. With regard to treatment in the early stages, he had known counter-irritation down the spine used, but the chances were that no treatment would do much good. When the child has paralysis with flaccid muscles, rubbing and warm clothing are of use. Galvanism of both legs under water is also useful, notwithstanding that many physicians and surgeons disparaged this remedy, and said it had been tried and found to be valueless. He (Mr. Adams) used two tin boots, filled with warm water, in each of which the little patient's foot is placed, and galvanism is applied. Dr. Gull had written some valuable papers on galvanism in the *Guy's Hospital Reports*. The nutrition of the limb must, if possible, be maintained. Dr. Junod's boot for exhausting the air was once in much repute, and is now, perhaps, too much neglected. A paralytic patient of his could always warm the leg in ten minutes by this apparatus; the boot has had no bad effects, but is liable to get out of order. It is, doubtless, a most useful remedy in many cases of paralysis. In some cases of infantile paralysis the rectus muscle remains paralyzed for life, and the leg swings; but this can be compensated for by mechanical means, so as to enable the child to walk.—*Med. Times and Gaz.*, May 20, 1865.

THE RELATIONS OF THERAPEUTICS TO MEDICINE.—It will be admitted by most thinking men that the study of diseased or healthy organization has revealed more of the effects than of the essence of disease. So subtle are the conditions by which the equality of life is preserved, that, in a vast proportion of instances of death, the most refined anatomy and chemistry fail in discovering a commensurate change, or in explaining why what was a living creature yesterday lies before us in a few hours a decomposing mass of clay. Hence, we must be cautious in extensively adopting any therapeutical system which is solely based on inference from visible organic change. In the present imperfect state of our knowledge, we must not neglect that study of therapeutics which is essentially experimental and inductive; and if there be one thing wanting more than another in our science, it is that men should know the nature and difficulties of therapeutic evidence. If, as I have often heard Professor Acland observe, only a few of our well-instructed brethren who are in charge of public institutions, well aware of the established laws of disease, whether essential or non-essential, and good observers, were to take

up any one remedy, whether new or old, say digitalis, and faithfully record on the one hand the character and history of the case, and on the other the results of the use of the particular medicine, or other therapeutical proceeding, we should ere long have such a mass of unbiassed statement of facts, that safe conclusions could be drawn. Until this is done, the position of therapeutics will be an inferior one. It will not be any trustworthy guide in practice, except in a few salient instances, and will be powerless in its other great function of being the key to, and the test of, pathologic conclusions.

To bring therapeutics up to this level seems to be the great desideratum. We may fairly hold that the time is ripe for the commencement of its study with the view to its higher functions or development. Without placing limits to the material investigations in which we are aided by the microscope and by chemistry, we may believe that our knowledge of the intimate structure and composition of the solids and fluids of the body is so extended as to give to the therapist reason for holding that he is now far better acquainted with the living organism than he was a quarter of a century ago; and that so he has a broader and more secure foundation to build upon. But the therapist must also possess assistance of another kind. He must know the principles of accurate reasoning; he must distinguish between the *post hoc* and the *propter hoc*; he must be content still to deal with vital phenomena as constituting a class of the nature of which our knowledge is so deficient, that we have still to study their modifications by external agents, experimentally, and without as yet much reference to their relations to structure or to vital chemistry; he must take into account the laws of periodic action in health and in disease, and determine, or seek to determine, as he proceeds, whether the simplest form of acute local as well as of general disease is not under some of these wonderful laws; he must study the question as to whether medicinal interference extinguishes morbid action, postpones it, or, by breaking its circle, as suggested by Professor Boeck, though this be followed by temporary good, deranges the process which is to end in its removal; he must well understand that certainty in medicine must be approached by the balance of probabilities, and have a full insight into the difficulties of medical statistics, which result from the labors of more than one observer. Other circumstances will suggest themselves to you—as the influences of locality, of race, of age, sex, habit, and previous history. I will not dwell on them, further than to remark that, had Broussais

attended to one of them, in particular, he would not, I think, have fallen into the error of declaring the non-existence of essential fever from observing disease within a narrow circle of the world.

If therapeutic science is to advance, it must be followed and studied in the most severe scientific spirit.—*Dr. Stokes' Address before Brit. Med. Assoc.*

THE BRITISH MEDICO-PSYCHOLOGICAL SOCIETY, THE JOURNAL OF MENTAL SCIENCE, AND THE LATE DR. BELL.—The following resolutions, it will be remembered, were adopted at the last meeting of the Association of Medical Superintendents of American Institutions for the Insane :

Resolved, That the editorial notice of Dr. Ray's Memoir of the late Luther V. Bell, M. D., as published in the *British Journal of Mental Science* for July, 1863, is regarded by this Association as containing an unjust aspersion on the character of its former honored President, and as such is unworthy of the Association of which the *Journal* is the official organ.

Resolved, That in anticipation of the annual meeting of the British Association, to be held in London during July, the Secretary of this Association address copies of these resolutions to the President and Secretary of our sister society, in the hope that it may reject all responsibility for and publicly disapprove an act which is as offensive to this body as an impeachment of their own venerable Conolly would be to our fellow laborers in a common field of philanthropy.

These resolutions have been responded to in a courteous and excellent letter by the President of the British Medico-Psychological Society, (late British Association of Medical Officers of Asylums and Hospitals for the Insane.) The letter places the Society *rectus in curia*, and conveys expressions of regret on the part of the author of the aspersive article in the *Journal of Mental Science* :

54 UPPER HADLEY STREET, LONDON, }
Tuesday, 1st August, 1865. }

JOHN CURWEN, ESQ., *Secretary to the "Association of Medical Superintendents of American Institutions for the Insane."*

DEAR SIR: On behalf of the Medico-Psychological Association, which has just held its meeting at the Royal College of Physicians, in London, I beg to acknowledge the receipt of your letter of the 21st of June, conveying a copy of resolutions adopted at the Meeting of the "Association of Medical Superintendents of American Institutions for the Insane."

The Medico-Psychological Association and the Editor of the *Journal* (published in July, 1863, by their authority,) individually, have done me the honor to request that I would, as their President, reply to your communication; and they have given me full authority to make all possible amends for the hasty expression of political sympathies reflecting on the judgment and acts of your late esteemed President, Dr. Luther Bell, which appeared in that *Journal*, and which we all most sincerely regret, and no one of us more so than the Editor himself.

I should observe that the members of the Association entirely disclaim all responsibility for the opinions of the Editor, or of any other writer in the *Journal*, for they know nothing of what is forthcoming until it appears in print; and have, therefore, no opportunity to exercise any censorship on the tone or tendency of the articles produced.

We are all strongly of opinion that whatever may be the political opinions of one of our professional brethren, he should not, on that ground, be subject to animadversion in a scientific journal; and we feel bound to believe that the part which Dr. Bell took as a citizen of the United States, in giving his life for his country, was dictated by the same high sense of duty which had already led him to devote his best years to the responsible duties of his profession, and which had earned for him the esteem of his contemporaries and the grateful recognition of those who had benefited by his valuable services.

I hope that the unfortunate expressions in the passage referred to, and of which you had reason to complain, will not lead you to overlook the general spirit of the article, which you will observe was intended to give full credit to the high character and distinguished career of your former President.

Engaged in the same arduous and responsible duties, we are most desirous to cultivate the kindest feelings with our brethren of the United States ; and I trust you will accept the assurances of our earnest wish and resolution to guard the honor and protect the memory of one of your associates as jealously as we would had he been one of our own countrymen.

Believe me, Dear Sir,

Very faithfully yours,

WM. WOOD.

DR. BRIGHAM'S MENTAL HYGIENE.—We notice with pleasure that a new edition of the admirable little treatise on Mental Hygiene, by the late Dr. Amariah Brigham, has just been issued in England. The several editions published in that country, both before and since the author's death, were speedily exhausted. "The first," says Dr. McNish in a prefatory notice of one of the earlier editions, "was literally seized upon;" and the distinguished Mr. Cobbett, shortly before his death, declared his intention of having a cheap edition published at his own expense, "to abate," as he said, "the nuisance of infant schools."

In this country, the book has been out of print these many years ; but its teachings were never more needed than at the present time. We would express the hope that the public wants may be met, ere long, by another American edition.

RESIGNATIONS AND APPOINTMENTS.—We announce, with more than ordinary regret, the resignation of Dr. R. J. Patterson, Superintendent of the Iowa Hospital for the Insane. Iowa, although almost the youngest of our States, is surpassed by none in its excellent provision for the insane ; and its superiority in this respect is, in a great measure, due to the exertions of Dr. Patter-

son. Few men are better suited by nature, education, professional acquirements and devotion to the welfare of the insane, to fill the position he has left, than Dr. Patterson. Upon Dr. Patterson's resignation, the Board of Managers of the Hospital adopted the following preambles and resolution :

WHEREAS, Dr. R. J. Patterson, Medical Superintendent of the Hospital, has resigned his office as such Superintendent ;

WHEREAS, As such Superintendent he has been connected with this institution from its organization, nearly five years since, and as such officer has discharged his duties with fidelity, ability, and eminent success ; therefore,

Resolved, (unanimously) That we deeply regret the necessity which has compelled such resignation, and desire to express, as we hereby do, our high appreciation of the faithfulness and integrity with which he has discharged the difficult and responsible duties of his office, and of his ever agreeable and satisfactory intercourse with the Board.

M. L. EDWARDS, *Secretary.*

Dr. Mark Ranney, Assistant Physician to the McLean Asylum, Somerville, Mass., has been elected Superintendent of the Iowa Hospital for the Insane, in place of Dr. Patterson, resigned.

Dr. C. Dewey, who has held the position of Assistant Superintendent of the Iowa Hospital since the opening of the institution, has resigned ; and Dr. H. M. Bassett, of Ohio, has been appointed in his place.

Dr. Tilden, Resident Physician of the State Insane Asylum at Stockton, California, has resigned. Dr. G. A. Shurtleff, of San Joaquin county, has been appointed as the successor of Dr. Tilden.

General Hamilton, Provisional Governor of Texas, has appointed Dr. B. Graham Medical Superintendent of the State Lunatic Asylum, Texas.

AMERICAN JOURNAL OF INSANITY,

FOR JANUARY, 1866.

THE HOPPER WILL CASE.

[We are permitted to publish the following opinion, lately given in the Court of Appeals of this State, in the case of "The American Seaman's Friend Society and others, v. Hester Hopper and others." The judgment of the Court was in conformity with the opinion. This interesting case, in which the question of insanity is the chief issue, is an inquiry into the validity of the will of Charles Hopper, deceased. The statement and opinion so fully comprise the material facts brought out on the trial, that no additional history of the case seems to be required.—Ebs.]

This is an appeal from a judgment of the Supreme Court, affirming a determination of the Surrogate of the county of New York, which refused to admit to probate a paper propounded as the last will and testament of Charles Hopper, deceased. The alleged will bore date the 28th of October, 1861, and the deceased died on the first day of November, four days afterwards. The paper was propounded by Chauncey Shaffer, one of the two persons named in it as executors, on the sixth day of the same month of November. A citation was issued to the widow and next of kin, who appeared by proctors and counsel on the return day, the 26th of December; and on that and several other days prior to the 11th of March, 1864, the proofs were taken and the parties duly heard, and on the last mentioned day the Surrogate made an order or decree declaring Charles Hopper, the alleged testator, incompetent to make a will, and that the paper

propounded was not executed and attested in the manner prescribed by law, and hence that he died intestate.

The appeal to the Supreme Court was by the residuary devisees, the American Seaman's Friend Society, and the Ladies' Union Aid Society of the Methodist Episcopal Church of the city of New York, and by Chauncey Shaffer, one of the persons named as executors. The order of the Supreme Court affirming the decree of the Surrogate, was made on the 1st of May, 1865. The same parties who had appealed to the Supreme Court then brought the present appeal, making the parties who had contested the probate before the Surrogate parties respondents.

DENIO, C. J.—Charles Hopper, the validity of whose alleged will is the subject of controversy on this appeal, died at his residence in Mott street, in the city of New York, on the first day of November, 1861, at the age of about sixty-seven years. He had no descendants living, but he left surviving him his widow Hester, and a sister, Elizabeth Wiley, a widow, and six nephews and a niece, the children of a deceased brother, Thomas Hopper. Besides these he left other relatives, not entitled to succeed to his estate upon intestacy, namely: three sons and a daughter of his sister, Elizabeth Wiley, and a grand-nephew, a grandson of his said sister. The widow of the deceased brother was also living. These relatives, for the most part, resided in the city of New York or in Brooklyn, though three of the nephews and the grand-nephew lived in other States of the Union.

He left an estate, the greater part of which was in buildings and lots in the cities of New York and Brooklyn, valued at between eighty and one hundred thousand dollars. By his will, executed when he was very ill,

four days before his death, he appointed Chauncey Shaffer, a counsellor at law, and Abraham M. Fanning, a real estate agent, his executors; and he constituted them trustees of all his estate not specially devised. He gave to his wife, (in addition to her dower,) besides his beds, bedding, and household furniture, and her clothing, a house and lot in Brooklyn, on condition that she should release her dower in another house and lot in New York, which, in the subsequent part of his will, he devised to his nephew John R. Hopper, and Mary Hopper his wife; but if she should elect to receive the rents of the house in Brooklyn, and an annuity of fourteen hundred dollars per annum, both for life, in lieu of dower in all his estate, he gave her the option to do so. He gave to Mrs. Colton, a married niece, the daughter of his sister Mrs. Wiley, and her children, one dollar each; to the grandnephew, Charles Wiley, living at Janesville, Wisconsin, three hundred dollars per annum until he should come of age, for his support and education. He devised to his said nephew, John R. Hopper, and Mary his wife, a house and lot situated on Tenth avenue, New York, in fee, and to each of their children who should be living at his death, one hundred dollars each; "to each and every of the children of my brothers and sisters living at the time of my decease, and who are not hereinbefore provided for, the sum of one dollar each, whether the parents of said children be living or dead at the time of my decease;" and to Mary Russell, his nurse, the sum of two hundred dollars. All the residue of his property, real or personal, he bequeathed and devised to his executors, or the one who should qualify, in trust, as to the personal to convert into money, with all reasonable dispatch, and as to the real to sell it within a reasonable

time after the expiration of the existing leases upon it, and to divide the proceeds equally between the two charitable societies above mentioned as appellants; in the case of the Seaman's Friend Society, to be applied to the benefit of shipwrecked and other destitute seamen, and in the other case, to the comfortable residence, support, employment, and medical and other necessary care of aged and infirm females.

Charles Hopper was either a native of the city of New York, or came there at an early age, and commenced life as a butcher in the Franklin Market, which business he pursued for many years, and until he had accumulated a considerable estate; but he retired from business several years before his death, and thereafter had no employment except the management of his property. He had but little education and was quite illiterate, as is apparent from all the testimony, and some specimens of his writing which were given in evidence. In early life he married the wife who survived him, with whom he lived on ordinarily amicable terms down to about five or six years before his death. They had one child, a daughter, who lived to be married, but who died without living issue before his troubles with his wife and relations appear to have commenced. As to his character, disposition and habits prior to the change in them which, it is alleged, occurred, the evidence shows that he was an active and energetic man of business, fond of gain, laboring hard to acquire property, and investing it with reasonable judgment and discretion. He was brusque in his address, positive, wilful, and headstrong in his purposes and opinions, and impatient of contradiction. He was coarse and profane in his conversation, and much addicted to the use of ardent spirits; though he was not

often, until the latter part of his life, so far intoxicated as to affect his capacity for business. If his declarations may be trusted, he was a disbeliever in revealed religion; and he had taken up a very strong prejudice against ministers and clergymen of all religious denominations; believing, or pretending to believe, that they embraced the profession for selfish purposes, and employed it for base ends, especially in regard to the female members of their congregations. I do not mean to say that all these disagreeable traits in his character are proved by any one witness, or are shown to have been manifested at all times; but they are the fair result of all the voluminous testimony in the case.

Prior to the year 1855 or 1856, there is no pretence that he was not fully competent to make a testamentary disposition of his property. Even after that period, and down to the time of his death, whenever his state of health enabled him to be abroad, he continued to attend to the making of small purchases for family use; and it was not usually apparent to those who dealt with him in such matters, that his mind was otherwise than entirely sane. During this period, the business of collecting his rents and investing his moneys was committed to persons employed as agents by him, and under his directions.

It appears that about the year 1856, or somewhat earlier, he commenced to have apprehensions of his wife and his relations, and suspected them of a design to break up his family, exhibiting on these subjects a good deal of excitement, and talking about them constantly. According to the testimony of Mr. Van Antwerp, a lawyer who was a good deal employed by him in his legal business, and was, with his partner, for several years his only counsel, this disposition of mind continued

to increase, getting, as he expressed it, worse and worse, and more excited all the time; and he was constantly making new allegations against several persons, of a conspiracy to cause his death. In the summer of 1859, he was arrested by policemen, by order of the mayor, charged with threatening to assault his wife; and he gave bail to keep the peace for six months, Mr. Van Antwerp being his surety. About this time his wife left his house, alleging that he had committed violence upon her person, and she soon afterwards commenced an action for separation, on the allegation of threats and cruel treatment, which made it, as she alleged, unsafe for her to live with him. They lived separate ever afterwards. She appears to have had no kindred of her own blood, and no family connections except the relations of her husband. Two of his nephews, John R. Hopper and Capt. William L. Wiley, took part with her, and gave her some assistance in the legal proceedings; and the sympathy of all the others seems to have been in the same direction. This caused a state of high indignation on his part, and from this time until his death he believed, or affected to believe, that they were conspiring together, and with other persons, to destroy his domestic happiness, and in some secret manner to take his life.

The question which arises upon the evidence is this: Whether his conduct and declarations, from the commencement of the suit for a separation, embracing perhaps a year or two prior to that period, down to his decease, were simply the manifestation of an excitable, coarse, ill regulated and suspicious mind, made more intense by his habits of intemperance, or were the consequence, on the other hand, of an insane delusion, which led him to regard as certain truths, and actually to

believe in the existence, on the part of his wife and his relations, of conduct and intentions substantially such as he imputed to them. I am perfectly satisfied that there was no foundation in fact for the gross imputations upon his wife, or for the charge against his relations, all or any of them, of a design upon his life, or an intention to do him any bodily injury ; and that the idea of a conspiracy to injure him, otherwise than by promoting the suit which his wife was prosecuting, was either feigned or purely imaginary. If feigned, it is not enough to defeat the will. If he did not really believe what he alleged to be their criminal conduct and intention ; if he uttered the injurious imputations by way of personal abuse, in order to gratify a depraved and malicious disposition, or for the purpose of defaming or otherwise injuring them in the estimation of their acquaintances and the community,—any or all of these dispositions and motives, though most unworthy and reprehensible, would fall short of that degree of mental perversion which would enable the Court to pronounce him *non compos mentis*, and incapable of disposing of his property by will. On questions of testamentary capacity, courts should be careful not to confound perverse opinions and unreasonable prejudices with mental alienation. These qualities of mind may exist, even in a high degree, and yet, so far as regards the view which the law takes of the case, the subject may be sane, and competent to perform a legal act, and be held responsible for crime. Setting aside cases of dementia, or loss of mind and intellect, the true test of insanity is mental delusion. If a person persistently believes supposed facts which have no real existence except in his perverted imagination, and against all evidence and probability, and conducts

himself, however logically, upon the assumption of their existence, he is, so far as they are concerned, under a morbid delusion; and delusion in that sense is insanity. Such a person is essentially mad or insane on those subjects, though on other subjects he may reason, act and speak like a sensible person.* If the deceased in the present case was unconsciously laboring under a delusion, as thus defined, in respect to his wife and his family connections, who would naturally have been the objects of his testamentary bounty, when he executed the will, or when he dictated it, (if he did dictate it,) and the Court can see that its dispositive provisions were, or might have been, caused or affected by the delusion, the instrument is not his will, and can not be supported as such in a court of justice. The conduct and designs which he imputed to his wife and relations were such as, upon the assumption of their existence, should have justly excluded them from all share in the succession to his estate.

I have examined with great care the mass of evidence in this case, not with a view of determining whether the imputations were true, for of that, as I have said, there is no evidence or probability, but for the purpose of satisfying myself whether the deceased really believed them, or threw them out for purposes of abuse, and to gratify revengeful feelings, arising out of the prosecution of the suit for a separation, or otherwise; and I will premise, that I have not, upon this branch of the case, relied upon any part of the evidence in respect to which the testimony is contradictory, or upon the uncorroborated deposition of any witness against whom there seemed

* See *Dew v. Clark*, 3 Addams Eccl. Rep. 79.

any just ground for imputing partiality, or interested motives.

Mr. Van Antwerp, before referred to, is wholly unconnected with the parties to the controversy. He had been the attorney and legal adviser of the deceased, from the year 1846 down to April, 1860, about a year and a half before he died. He appears to be a gentleman of observation and good sense, and his profession would lead him to speak with more precision and intelligence than several of the other witnesses who were examined. According to his testimony, the excitement of the deceased respecting his domestic affairs appears to have commenced about the beginning of 1856, and during the ensuing three years and a half, the witness thinks he conversed with him on these subjects as many as an hundred and fifty times; he continually making new allegations of circumstances, and of the acts of parties confirmatory, in his opinion, of his suspicions. At first it seems that the allegations were, that the suspected parties were interfering with his domestic affairs, and attempting to break up his family. In the year 1858, he began to entertain the idea that persons were attempting or conspiring to take his life. On one occasion he confidentially informed the witness that the suspected parties had chartered a steamboat, on the pretence of going on a fishing expedition, and had induced him to accompany them; and that after he got on board, he discovered that their design was to make way with him, for the purpose of getting his property. On another occasion, about the same time, he sought a private interview with the witness, in the back room of his office, and informed him that there were parties who had procured a carriage and some men, and had driven into the

neighborhood of his house, with a design to seize and take him to the lunatic asylum. He said he had got the information from an individual, whom he refused to name, because, as he said, he feared that if he did they would kill him. He declared he would not venture to go home that afternoon, but would go over to Hoboken, and return in the night. There is no evidence or reason to believe that any such design was entertained by any person. On the occasion of his being brought before the mayor, on a complaint of his wife, he was very anxious that Mr. Van Antwerp should cause the proceedings to be published in the newspapers, for the reason, as he stated, that the suspected parties would get frightened, and he would thus "get rid of the whole tribe." After he had been sued by his wife for a separation, he insisted that a suit should be commenced by him against her, on the ground of adultery on her part. On being required to name the other party to the criminal intercourse, he mentioned the names of several prominent clergymen of the Reformed Dutch Church, she being an attendant of one of those churches, and said they were around his house all the time. On the witness declining to commence a suit, he proposed to him to procure his wife to confess her guilt, and agreed to pay him for that service whatsoever he had a mind to ask ; and said he would give his wife as much money as she wanted, to enable her to live like a lady all the remainder of her life.

Mr. James, the partner of the last mentioned witness, and who seems well qualified to give trustworthy evidence, deposed to several conversations between the witness and himself, independently of those mentioned by Mr. Van Antwerp. He says the deceased would often come to his office, and mention having met individuals

in the street who stopped him and spoke to him ; and he said he knew they had a design in doing it, which was to entrap him in regard to his wife's suit. The witness says that the deceased was impressed with a notion, which he never got over, that there was a conspiracy, on the part of his wife and several clergymen of the city of New York, to break up his marital connection with her ; and that these clergymen were in the constant habit of illicit intercourse with her, and that she had been diseased by one or more of them, and had communicated the disorder to him. The witness endeavored to convince him of the absurdity of his accusation, by stating that the clergymen named were men advanced in years, and of high character, and that his wife was also old. But his efforts were without success. The deceased appears to have taken up the idea, pending the suit for a separation, that there was an apartment in Broadway, distinguished by a sign on which a human eye was painted, which was visited by his wife, for the purpose of illicit intercourse with the persons whom he had mentioned. When the examination of witnesses in the suit for separation took place, he insisted that a Miss Warner, who had lived in the family, and who had been examined on behalf of his wife, should be cross-examined about that place, which, he said, he had seen her enter. It does not appear whether the cross-examination embraced that topic, but it was foreign to the issue, and probably was not pursued. He constantly expressed to this witness, that there was a conspiracy among his friends and family relatives, to kill him or get him into prison.

It would be tedious to refer particularly even to the principal witnesses who testify to his declarations respecting the alleged infidelity of his wife, and the supposed

conspiracy to assassinate him. They are quite numerous, and their testimony shows that his mind was constantly occupied with those apprehensions, to the exclusion of almost every other subject. But I ought not to omit the testimony of Dr. Downs, on account of his profession and the superior opportunities which he possessed for observing the deceased, and his connection with the execution of the will, to which he was one of the attesting witnesses. Dr. Downs is a physician practising in the City of New York, and had been the medical attendant of the deceased for the last year of his life. The deceased had been much ill during the time, the doctor having visited him professionally, as he states, about eighty times previously to the injury, which occurred about a week before his death. I limit my notice of his deposition to the two topics, the infidelity of his wife, and the alleged conspiracy to take his life. The deceased stated to the doctor, at about the commencement of his attendance, that he had pains in his loins, limbs, and head, and ulcers and sores upon him; that these were produced through his wife, and were the result of disease arising from her intercourse with other men. He mentioned the names of three well known and respected ministers of the Dutch Church, as parties with whom the intercourse had taken place, and stated that one of them had been detected in going over a fence to get away from his house. He affirmed that he had proof that she went to houses of assignation, and that the Miss Warner who lived with him, and was the person who had been examined in the suit for a separation, had knowledge of her infidelity, and that he had offered her money to tell all she knew. The Doctor swore that the deceased appeared to believe these imputations respecting his wife.

On the subject of the conspiracy, the deceased, according to the testimony of this witness, alleged that all his relations were set against him, and were endeavoring to kill him by the administration of chloroform, or some other means, in order to get his money, which, he said, amounted to about \$100,000. He included in these charges all of his family relatives, and was particularly suspicious of two of his nephews, John R. Hopper and Captain Wiley. He pretended to have been under the influence of chloroform, through their procurement, several times, and to have been once knocked down in the street by some one of the party; and whenever any trifling accident happened to him, such as falling, he would attribute it to the influence of chloroform, administered by the agency of some of them. These declarations, he says, were repeated constantly, and though he would sometimes apparently convince him of their absurdity, he would renew them, until the Doctor desisted from all conversation with him on the subject. The Doctor declares on his oath, that he considered him a monomaniac in respect to his family and relatives. It is doubtless some detraction from the value of the Doctor's testimony, that he countenanced the execution of the will, by becoming an attesting witness; though he declares that he informed persons beforehand that he did not suppose the instrument could be sustained. But considering the apparent candor of his answers, and the amount of corroboration, I am induced to believe in the substantial accuracy of his statements.

A great number of witnesses, in addition to those already mentioned, relate declarations and conversations of the deceased, on a great variety of occasions, to the same general effect as those stated. It appears to have

been the principal topic of his conversation, for a year or two before his death, that he was habitually pursued by a combination of persons, embracing all his relatives, whose design was to effect his death, by chloroform or by violence ; and that his wife was continually engaged in illicit amours, at assignation houses and other places. He repeatedly made offers of money to persons totally unconnected with his family, but whom he suspected of some knowledge of the conspiracy, if they would come out and expose the conspirators. One of these witnesses, the nephew John R. Hopper, gives testimony covering the whole ground ; but as he cannot be considered indifferent, from his being a party to the litigation, and on account of difficulties with the deceased and with Mr. Shaffer, who drew up and has propounded the will, I do not refer particularly to any part of his deposition, except that which relates to the pretended place of assignation frequented by his wife ; and I mention this only on account of a slight incidental corroboration, existing in the hand writing of the deceased himself. Mr. Hopper swears that the deceased very often referred to the sign of a human eye, in front of an oculist's office in Broadway, between Bleeker and Houston streets. The deposition proceeds as follows : " He stated that the eye was used to direct his wife as to what time it would be safe for her to come out of the house—her and Mary Ann Warner—and when she ought to stay in the house ; that sometimes the sign would be on the right side of the door, and sometimes on the left," etc. Several of the other witnesses speak of his statements respecting this sign, intimating that it designated a place where his wife was accustomed to meet persons with whom she had criminal intercourse. In a book containing entries in the hand-

writing of the deceased, in the form of a diary, but very illiterate and incoherent in its general tenor, there is found this minute: "1857, Feb.—After the sign of the Human Eye was taken *down and put on the left side of the door some days after remove all*—together the day that Mrs. Shipman was at my house and James Demarest and wife and her sister and Mrs. Reed called on Mrs. Williams of Bangor for to tell about the sign." The entry apparently refers to the employment of the sign as a signal, and shows that his mind was early exercised upon it, and its removal from one side of the door to the other, apparently as a signal for some purpose. Standing alone it would, of course, have little or no weight, but connected with the other testimony, it has some tendency to show how strong the delusion was upon that particular subject.

In referring to the evidence on the part of the contestants, I have omitted a great deal which is related by them showing the folly, fatuity and incoherence manifested by the deceased on various occasions, and upon different subjects. They afford some ground for imputing to the deceased general insanity. But as he was an habitual drinker, and was frequently intoxicated, it is impossible to say whether what is deposed to was the result of temporary intoxication or of settled mania. I have, therefore, in coming to a conclusion relied wholly upon the proof of delusion upon the two subjects intimately connected with the testamentary disposition of his property.

The party propounding the will has examined a great number of witnesses, many of whom knew the deceased but slightly, and who speak of trifling transactions of business, such as purchases of provisions and articles of

family marketing. This class of witnesses, when they found him able to transact such affairs, and saw nothing extravagant or peculiar in his manner, readily pronounced him of sane mind. In cases involving questions of mental capacity, I have generally found opinions of unprofessional witnesses, with only a short or slight acquaintance with the party, of little value. If the witnesses, though not professional, have had a long and intimate acquaintance with the person of whom they are called upon to speak, and are, moreover, persons of intelligence, and detail the facts upon which their opinions are founded, their testimony is often extremely useful. Where the mental disorder is a delusion upon one or a few particular subjects, the testimony of persons with whom he has not had occasion to speak on these subjects is of no weight. The considerable number of shopkeepers, mechanics, and retail dealers who have been called upon to pronounce upon his capacity, have not appeared to me to overcome, in any appreciable degree, the testimony on the other side, which I have adverted to. It is worthy of remark, however, that several of the persons who have been examined by the proponent, and who have given opinions favorable to his capacity, have, on cross-examination, remembered declarations of the deceased strongly confirmatory of the evidence of delusion produced by the contesting parties.

The symptoms of delusion upon the two subjects so often adverted to, appear to have continued in their full force down to the time of the injury by being burned, which the deceased received on the 20th of October, about a fortnight before his death. This injury reduced his strength, and diminished the violence of his language to some extent, and it was during this period of debility

that the will was executed; but I am unable to find any evidence that the delusions under which he had been laboring were dispelled. Dr. Downs, who had the best opportunity of observing, states that he held the same language, in substance, respecting his family, but that he was less violent and demonstrative in his expressions; owing, as the Doctor supposes, to his debility.

The will makes a certain provision for his wife, though much less than we should look for, considering the amount of his property, and the fact that he left no descendants, if he had not taken up the insane and absurd belief, that in her old age she had been constantly violating her marriage vows. He also makes a certain provision for John R. Hopper, one of the nephews, and his children—the one against whom he entertained the most violent animosity, and whom he sometimes charged with inflicting the injury which hastened his death. But he gives nothing to his widowed sister, and only the nominal sum of one dollar each to her children, and to his other nephews and nieces; and he bestows the bulk of his estate on two charitable societies, meritorious no doubt, but which, it is apparent from his general modes of thinking, he would never have conceived the idea of endowing, if he had not determined to disinherit the natural objects of his bounty, from an insane belief that they had long been conspiring against his happiness and his life.

I have omitted to speak of many subjects which were much litigated in the evidence, and enlarged upon in the argument. They relate, for the most part, to immaterial issues, though they occupy a large space in the two volumes of testimony which have been laid before us. The effort to charge John R. Hopper with the attempt

to assassinate the deceased, by laying him upon a hot stove, and thus causing an injury which no doubt hastened his end, I dispose of by saying that it is without evidence, and against all rational probability, and is disproved by the evidence of the contestants. Besides, this same person is more favorably considered in the will than any other of his relatives; and furthermore, the determination of the deceased to disinherit his relatives, according to the testimony on the part of the contestants, was formed long before the happening of the injury. The same remark may be made respecting the difficulty which is said to have occurred between him and Captain Wiley. He was cut off, not so much on account of any personal objection to him individually, for he was placed in the same category with his brothers and sisters, but as a part of the determination by which the family were deprived of the succession, on account of their conspiracy against him.

I regard the allegations of an insane delusion on the part of the deceased, on the subjects so often referred to, as satisfactorily established by the testimony; and this alone would compel us to pronounce against the will.

I have thus far assumed the execution of the instrument to have been satisfactorily established. The deceased is shown to have assented to the provisions of the will, as it was read over to him by Mr. Shaffer, in the presence of the two physicians who became attesting witnesses, and of Mr. Fanning; and to have assented to the publication of it as his will, and to the request of the witnesses to subscribe it; and he took hold of the pen when Dr. Downs wrote his name at the end of the instrument. It is a little uncertain, however, from the evidence, whether his assent was by a nod or

gesture, or by words ; but if by words, they were limited to affirmative answers to questions put by Mr. Shaffer. I do not doubt but that a will may be legally executed in this manner. But the evidence ought to be satisfactory that the testator was capable of understanding what was proposed to him. Now, according to the testimony of Dr. Vanderpoel, the deceased was then in extremity. He was separated from every member of his family, and no attempt was made to put him in communication with any of them. He had none of the attentions, nor any of the comforts, which a man of large pecuniary means, and with a numerous kindred, could easily have commanded if he had been properly dealt by. The nurse, if she could be so called, was a woman habitually intemperate, and often drunk, and otherwise extremely vicious. Dr. Vanderpoel swears that he thought him the most God-forsaken man he ever saw, and the other evidence fully bears him out.

The evidence which relates to the precise time of execution, is adverse to the validity of the will. The two attesting witnesses, Drs. Downs and Vanderpoel, and Messrs. Fanning and Schaffer, were present. Of these, Dr. Downs and Mr. Fanning thought him incompetent to understand and execute such an instrument. The former, it will be remembered, had been his attending physician for more than a year, and Mr. Fanning had been his agent for collecting his rents for a longer period ; and both had been in constant, and, for a considerable part of the time, in daily intercourse with him. Dr. Vanderpoel saw him for the first time when he came to witness the will, and though he attended him, in consultation with Dr. Downs, from that time until his death, he had not at any time any conversation with him, ex-

cept to ask such questions as professional duty required, and to receive answers in monosyllables. He frankly admits that sufficient did not occur in his presence to enable him to form an affirmative opinion as to his competency ; but he says he neither saw nor heard anything to enable him to give any other opinion than that he was sane. Mr. Shaffer is understood to affirm that he was competent, and there is no doubt but that his opportunities of observation were ample. The weight of evidence, if the case depended on that interview, would be against the testamentary capacity of the deceased at the moment of the execution.

The will was drawn on the same day by Mr. Shaffer, and, if the testimony of Mr. Fanning is to be believed, and I am inclined to credit it, there were no intelligible instructions given. On the morning of the day on which it was executed, there was an interview between the deceased and Mr. Shaffer and Mr. Fanning, around the sick bed of the former. The final instructions, if there were any, were given on that occasion. Mr. Shaffer would ask the questions, and the deceased was understood generally to have assented to what was proposed ; but in a manner, according to Mr. Fanning, not denoting any intelligent appreciation of what was going forward. For instance : The question was asked what should be given to John Hopper ? The deceased replied, " Give him all." The witness says, " Other names were asked, but the deceased could not and did not give a name." He says that Mary Russell, the nurse, who was present, gave a number of the names—of his relatives, as I understand. After some other propositions, to which the deceased assented, it was asked what should be given to this Mary Russell, the nurse ; and the reply

of the deceased was, "Give it all to her. She may as well have it as anybody." At the close of this conversation the parties separated, and the will was drawn at the office of Mr. Shaffer, at a later period of the day, and executed in the evening; Mr. Fanning being present when the principal provisions were written down. I am aware that Fanning is contradicted in a good deal he has sworn to by Mr. Shaffer, and it may not be an easy matter to determine which version to credit. Fanning having refused the executorship, has no possible interest in the result. Shaffer, if the will is sustained, becomes the devisee in trust of this considerable estate, with no person to call him to account except the charitable institutions; which, under the circumstances, would not be likely to be very exacting beneficiaries. It would be apparent to them that they owed the gift to Shaffer's agency; and his wife was a manager of one of them. That he entertained the idea of profit from the position, is admitted by himself; and it is not difficult to see that the management of such an estate by an attorney for a course of years, would yield something of an income. He may be regarded, I think, as taking a substantial benefit under the will. Considering the condition of extreme debility of the deceased, I think some corroborative evidence of instructions, beyond the deposition of Mr. Shaffer, ought to have been given. Reading a will to a testator in the presence of the witness is usually enough, even where it has been drawn by a party who takes an interest under it; but this supposes that the testator has capacity to understand it. I am not at all satisfied that the deceased was in such a condition. To say the least, it was a case of doubtful capacity. Seeing that at an interview in which instruc-

tions were professed to be received, on the same day the will was drawn, there was not one word said respecting the principal legatees, and that the deceased was *in extremis* when the formal execution took place, I am obliged to say, that there should have been further evidence of directions to prepare a will disinheriting the greater part of his relatives, and giving the bulk of his estate to these corporate legatees. The deceased may have conversed with Mr. Shaffer about giving it in that manner on former occasions, though Mr. Fanning supposes that, as to one of the societies, the gift was suggested by himself while the will was being drawn, and after the interview when the final instructions were given. Upon the whole, the evidence is not satisfactory to my mind, that the deceased really dictated the substance of this will, even supposing that, with proper assistance, he was competent to make a will.

I have alluded to the isolated and miserable condition in which he was found when the will was executed. This was no doubt owing, in a great measure, to his own perversity, and his unreasonable suspicions. But I am not satisfied that he was dealt by with perfect fairness by his confidential adviser. It seems to me that one who had won his confidence could, and should, when he found him dying under such circumstances, have brought him in communication with those members of his family against whom he did not pretend to have any cause of offence, beyond the morbid suspicion, wholly groundless as it must have been known to be, that they were concerned in some plot against his life. Yet I do not find that Mr. Shaffer ever made any endeavor in that direction. On the contrary, he expressly testifies that he never reasoned or remonstrated with him upon the absurdity of

his suspicions. But he went further than that. He encouraged his delusions, by countenancing the idea that there had been attempts to poison him, and a "plot" against his domestic peace, in which members of his family were engaged. I think that, after it was seen that he was dying from an accidental injury, it was the duty of one standing in such a relation to him as Mr. Shaffer did, to endeavor, at least, to put him in communication with those who had a natural right to protect him, and to see that any testamentary dispositions which he might be disposed to make, were the voluntary dictates of his own will.

I am in favor of affirming the judgment of the Supreme Court, and of charging the costs of this appeal upon the proponent of the alleged testamentary paper.

THE MENTAL OPERATIONS IN HEALTH AND DISEASE.*

TRANSLATED FROM THE FRENCH FOR THE AMERICAN JOURNAL OF INSANITY

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The functions of the spinal cord are to conduct sensations to the brain, and to transmit to the organs of motion the commands of the will, and besides these, its most important office is the production of the simple reflex acts—the transforming of sensation into motion. The gray substance is the seat of this intermediate function between the double centripetal and centrifugal current, the reflex acts constitute one of its specific functions. But the gray substance transmits also sensations to the brain, and carries from it the motor impulses. In the direction of the brain, the gray matter transmits certain kinds of sensation which the white posterior columns cannot convey, which apparently originate only in the gray matter itself, and which consist of a kind of psychical transformation or modification of the centripetal sensations. In the opposite direction, the motor impulses on leaving the brain do not appear thus far to possess all the qualities necessary for voluntary motion; it is only in the gray substance apparently that these

* The article which is here presented to the readers of the JOURNAL OF INSANITY, makes a chapter in the admirable treatise on "Mental Diseases, Pathology and Therapeutics" of Dr. W. Griesinger, of Berlin, which has been translated into French by Dr. Doumic, of the Central Asylum of Poissy, and enriched with annotations by Dr. Baillarger.

impulses are elaborated, combined and arranged in such a way as to fit them for the voluntary muscular acts.

All the impressions transmitted by the spinal cord, as well as those coming from the nerves of the special senses—vision, hearing, etc., are united in the brain, where they are assimilated, associated and combined according to their various affinities, producing in the brain internal images or impressions which are purely subjective in their character.

These impressions leave after them traces or vestiges, whose combinations give rise to certain general results called perceptions, and without the intervention of the will, at the moment when these perceptions are produced, they are immediately and logically elaborated and associated in judgment, reasoning, etc. All these phenomena are in appearance intimately connected with the action of the sensorial sphere of the brain. But the brain is also itself a great centre of reflex action in which the conditions of sensorial excitement, of which this organ is almost constantly the seat, are being transformed into motor impulses. In the brain also, the simple and direct reflex action of the sensorial impressions on muscular contraction takes place, but generally in a very complicated manner. But these reflex acts, which are special to the brain, are also those which determine the results already elaborated of a great number of sensorial acts, which mutually modify each other and become more or less the objects of perception. These produce reflex acts which do not immediately take the form of muscular contraction, but are limited to furnishing motor ideas or impulses for future movements of the greatest complexity, and for the voluntary muscular acts.

All these functions must also, by analogy, be mainly referred to the cineritious portion of the brain; and the cortical layer of the hemispheres, the extent of whose surface constitutes one of the principal characters of the human brain, and in which among the insane extensive lesions are frequently met with, the cortical substance, I say, has for a long time been considered by most physiologists as the seat of the intellect and of the will. The intellect, it is true, is the result of numerous complex movements which doubtless cannot be considered as phenomena of transmission, but the most important and complicated must also be referred to the gray portion. But between sensation and perception, between the determinations of the will and their accomplishment, there is a great number of intermediate acts which must be located chiefly in the white fibrous portion of the cerebral mass, but as we have already remarked, it is impossible to determine with absolute precision where the intellectual order of facts, strictly speaking, begins.

The walls of the lateral ventricles also appear to perform an important part in respect to the mental operations; a fact which appears to be proved by the cases in which the ventricles are filled with serous fluid, especially when it has formed rapidly or when it has become altered in its composition, with superficial softening of the walls; in cases of this kind there is always profound dementia or a comatose condition. Consequently, if the mental operations generally cannot be referred exclusively to the gray substance, it appears very probable that all the free surfaces of the brain, that of the cortical substance as well as that of the ventricular walls, have a very close connection with the phenomena of mind; that mental integrity depends on integrity of the cerebral

surface, and finally, that it is chiefly the lesions of the free surface of the brain which give rise to the complicated symptoms of insanity. On the other hand, it is rare in cases where disorganization affects deeply the substance of the brain not to observe lesions of motion, which are generally associated with intellectual disorder when the disease has extended from the cortical substance or from the surface of the ventricles to any depth into the cerebral mass. Apoplectic clots, limited to the white substance without cerebral compression, never give rise to any considerable disorder of the higher mental faculties. Sometimes even nothing is observed in such cases, as if the centrum ovale had no function whatever. It appears that this portion of the brain is intended merely for transmission, and that this function may be effected by different channels, or to one side of the injured portions.

The central nervous system, which spreads out in the hemispheres, is symmetrical, as is also the peripheral. But we do not think double with two hemispheres any more than we see double with both eyes. To explain this unity of thought, as well as that of the impressions conveyed by the senses, it is necessary to recur to the central portions of the brain, the commissures. It is certain also, that wounds and organic lesions which affect both hemispheres at once, although comparatively of slight extent, give rise to more important symptoms, especially on the part of the psychical acts, than lesions limited to a single hemisphere. When anatomical lesions of the brain are found among the insane, these lesions, though often trifling in their nature, almost always exist on both sides and generally over a consider-

able extent of the cerebral surface. (Hyperæmia, Atrophy.)

The mental faculties have been known to be unaffected where one of the hemispheres was considerably atrophied; a single hemisphere may therefore suffice for the intellectual operations. But it is observed that in such cases the mind very quickly becomes fatigued. It seems therefore, that the mental activity developed by a single hemisphere can only be continued for a very short time, which appears to indicate that in the normal condition the two hemispheres act by turns, or that the mental effort is divided between them.

The opinion of Wigan, (*Duality of Mind*, London, 1844,) which asserts the complete duality of the mind in the two hemispheres, and the hypothesis of Holland, (*On the Brain as a Double Organ*, Chapters on Mental Philosophy, 2d Edition, London, 1858,) according to which certain mental disorders, and particularly states of mental tension and inward conflict, result from a want of harmony in the activity of the two hemispheres, and finally the attempt recently made by M. Follet to refer mental aberration to a want of correspondence in the innervation of the two hemispheres,—all these opinions, I say, appear to be founded on insufficient data.

In one case in which the disease was quite recent, (melancholia, with ideas of persecution, attempts at suicide, etc.,) the patient, who still retained some consciousness of his condition, declared that he was only insane on one side of his head. Other similar cases are recorded, but we are not disposed to consider them of any special interest or importance.

The life of the mind in man, as well as in animals, commences in the organs of sense; it is a continuous current which passes from without inwards in perception, and from within outwards in the organs of motion. The transformation of sensorial impressions into muscular motion, constitutes the general form of reflex action, with or without the consciousness of the individual. In animals and young children the simpler forms of this double current may be observed in different degrees of development. But slightly controlled by clear and accurate perceptions, we see their sensorial impressions converted at once into motor impulses, with a tendency to excessive mobility, which betrays immediately by words or actions the momentary impressions coming from without. Between these two fundamental acts of the life of the mind there is always interposed something excited by sensation—a third element which presents something, it is true, analogous with sensation, and which has an intimate connection with it, but which nevertheless is not the same. There is formed here, so to speak, an additional region occupying the middle ground between sensation and motion, and this region developing, enlarging and extending more and more, becomes finally a complex centre, which in its turn controls to a great extent both sensation and motion, and in the midst of which moves the whole spiritual life of man. This region is the intellect.

All the mental operations are performed in the region of the intellect, which constitutes the specific energy of the organ of the mind, and all the psychical acts which were formerly considered as so many distinct faculties, such as the imagination, the will, the emotions, etc., are only different relations of perception with sensation and

motion, or the result of the conflict of ideas among themselves.

What the intellect, strictly speaking is, or what passes in the mind when we think, no one can tell; but the forms under which this faculty is manifested and the place where thought originates and is accomplished, are not unknown to us. Everything seems to indicate that at least all clear and distinct ideas have their seat in the brain; it may even be said that perception is nearly allied to the internal sensorial functions and even constitutes a part of them. It seems that perception is essentially composed of two things; in the first place, of a subjective excitement, generally very slight, of the sensorium; and secondly, of a number of excitements which give rise to a general idea, and finally perception is the result of the blending of these two classes of impressions.

In the largest sense of the word, that, for example, in which Herbart has used it, every mental operation, whether active or passive, and consequently sensation also is referable to perception. Sensation is a perception originating in the brain in consequence of the direct transmission of an excitement which has acted on a centripetal fibre. There are many other perceptions which are not directly excited by the irritation of a sensitive nerve, but which are produced interiorly by the functions of the brain independently of all sensorial excitement. These are connected with the traces which antecedent sensorial impressions have left on the brain as well as with the phenomena of sensation itself.

We speak of ideas sometimes only as of things of which we are conscious, that is to say, which are actually present in the mind with a degree of force and clearness,

sometimes as absent, or as retained in the memory, but which in fact only exist in a nascent state. There is in the intellect a condition of life and activity, of which we are not conscious, though we recognize it by its results. A constant activity is maintained in this region of darkness and shadows that is much more important and characteristic of the life of the individual than the comparatively small number of ideas which pass into his consciousness. Many physical irritations and impressions originating in the depths of the organism, touch first and even exclusively on this region, and without our consciousness modify the phenomena belonging to it. These phenomena and the movements going on in this region tend powerfully to determine the actual disposition of the mind, to direct our tastes, and to guide our sympathies and antipathies.

A sudden and radical change in our ideas is sometimes, though rarely, accompanied with sensations felt in the head, the patient has a feeling as of something opening or shutting within the cranium, or as if he had experienced a slight shock, or as if darkness was gathering round him, or dispersing. Guislain (*Leçons orales*, t. II. p. 178,) and M. Trelat (*Annales Medico-Psychologiques*, t. VIII. p. 175,) have related similar cases. I have met with one myself upon which there could be no doubt. It cannot manifestly be concluded from these cases that the patients have perceived any change that actually took place in the condition of the brain; these phenomena seem rather to belong to the cerebral membranes or to their sanguine contents, and perhaps also to the distribution of the cephalo-rachidian fluid.

We have seen that the brain, as a whole, may be regarded as representing two ganglia superimposed on the

nerves of sensation, and in which the central expansions of these nerves are united to other masses of the cerebral substance. Accordingly in analyzing the mental operations, we find a fact of the first importance, which is the simultaneous and reciprocal action of the intellectual and sensorial activities. Not only is the intellect constantly awakened, stimulated and kept at work by impressions coming from the senses; not only does the intellect itself demand the simultaneous action of the senses, but even all our thoughts when at all definite are constantly accompanied with a certain degree of sensorial activity, with sensorial images however vague and shadowy they may be. The clearest and best defined ideas are those produced by the assistance of vision, which are composed essentially of visual images, from which it may be inferred that these ideas originate in the central ganglion of the optic nerve. It is also probable that among those animals in which the olfactory nerve furnishes large expansions to the walls of the lateral ventricles, the sense of smell performs an important part in the functions of the intellect. On the contrary, the ideas resulting from the perception of sounds, music, for example, are very vague and indefinite, and very difficult of expression, and it is very remarkable that in order to express this idea, consisting simply of the group of impressions produced by a great number of similar objects, a group with which each separate element tends to blend itself, and for which an adequate description can never be provided, we have no other means at our command than these very sounds or words themselves.

Speech is a phenomenon much too complicated to be localized in any distinct portion of the brain. Some of its lower portions, the surface of the fourth ventricle and

the olivary bodies, which are much larger in man than in animals, may well be regarded as having an intimate connection with the expression of ideas, with the articulation of sounds ; but there are yet other portions of the brain, the anterior lobes, for example, which have a considerable share in the production of language.

It is especially in cases where words are wanting though the corresponding ideas are present, when the patient pronounces other words than those which he wishes to use, it is in these cases, I say, that we can best realize the multiplicity of organs which must be simultaneously employed in the production of language. This form of disordered speech is not common among the insane. It is most frequently observed in diseases localized under the form of effusion into the centrum ovale or into the general cerebral mass.

We do not always appreciate correctly the true psychological character of words. Words are sonorous conventional images or signs, designed to represent general formulæ, and of themselves do not give distinct ideas ; they are generally limited to exciting in our minds groups of ideas as yet only incompletely developed, which reach only imperfectly our inner consciousness, and whose details vary with each individual. It is for this reason that each person attaches a slightly different meaning to words, and that it is so difficult to give a clear and accurate definition to them, and to know what we ought to understand by words and by their possible combinations. The apparition, often so vague and indefinite, of ideas which vanish before reaching a point of perfect clearness, and which are immediately replaced by other ideas, themselves incompletely developed, brings with it the danger of superficiality, of abstractions and

of a want of concrete ideas, for him who confines himself merely to words. Doubtless all the higher faculties of the intellect are intimately connected with language; animals are dumb—language and the use of speech are peculiar to man. Nevertheless there are moments when our inner life seems to transcend the mere form of words, when something unutterable and beyond the power of expression, which no human ear has ever heard, arises from the fathomless deep and all at once presents itself to our minds, and afterwards whatever knowledge we may possess and to whatever we may attain, it seems that we shall never be able to realize the fulfilment of what our thoughts promised us at that moment. It is then that we can understand the meaning of that saying of Goethe, “How contemptible is language.” Circumstances which are naturally accompanied by very powerful and multitudinous emotions must more frequently be met with among the insane than in the normal condition of the mental faculties.

A careful comparison of what passes in the act of perception with that which takes place in sensation, shows us that there exists between these two processes a great number of important analogies, and at the same time some differences which require all our attention, and which it is indispensable to understand for the proper comprehension of insanity.

1. In the first place, it is important to recollect that in both we have the same general conditions of an irritant and of irritability. Neither is in a condition of complete repose, except in the deepest sleep. Ordinary sleep, which to vision appears only as darkness, and so far as perception is concerned, a void, is still a degree of activity; we have a consciousness of this obscure field of

vision, and of this void existing in the sphere of perception. But the proper affection of the subject, that which in the sensible impression in color, sound, smell, is always the actual reality, that is to say, conscious perception. As in vision, hearing, etc., there is an infinity of degrees and shades in the strength and clearness of the impressions; so also in the consciousness and vividness of perception, there is a wide difference—perception is more or less strong, clear and distinct.

2. For the development and normal progress of perception, as well as of sensation, there is necessary a constant, moderate and adequate excitement from without. In the functions of the senses this excitement is produced by a real external impression, and that which takes place in the sensitive nervous system in the phenomena known under the name of *centric*, is of the same nature with, and in some sort takes the place of the ordinary peripheral excitant. On the other hand, the excitement by which perception is brought into play and which is necessary to the maintenance of its activity, is never received directly from the external world; it always comes through impressions made on the sensorium. There is then in perception a centric phenomenon, an image analogous to that which we have in sensation; but this image does not come from the direction of the peripheral surface outside of the organism—we have always a consciousness that perception is something which takes place within the head—the image is formed in the region from which the habitual excitement sets out, that is to say, in the region of the sensible impressions. This centric image of the perceptions seems to be precisely the condition of the necessity of the constant passage of sensible images of which it

is the seat. It is this which gives rise in the sensorium to that species of vague semi-hallucination which accompanies all perception, and which gives those ideas so multiform, of color, shape, sound, so indispensable to the clearness and accuracy of perception—a faculty which nature has given to each one of us in such different proportions; it is in one word that which gives form to the sensorial impressions, and is the basis of all those psychological phenomena to which we give the name of imagination, especially of those in which we have not only a weak and faint impression, but even a very clear one resembling in many respects an objective sensation corresponding to an outward excitant, as though it should be referred to an impression coming from the organs of sense. I speak of hallucinations properly so called. Here the perceptions act upon the central apparatus in such a way that an impression is made upon the latter, which is ordinarily produced only under the influence of an external irritant when it receives a sensation.

3. An excess of irritation has the same effect on perception as on sensation. A very sudden and intense flash of light, a violent noise, a very strong smell, as of ammonia, produce very acute and powerful sensations, followed by momentary impairment of the sense affected. In some cases the sense may indeed be entirely paralyzed, as has been observed in regard to the sight, hearing, sensibility of the skin, and as M. Graves has described a remarkable case, even in regard to the smell. But without going to this extent, this exaggerated sensation always produces a considerable diminution in the acuteness of the senses, which continues for a time after the cause has ceased to operate, so that the organ is less sensible to feeble impressions, as in the case

of the persistence of the image of the sun on the retina after the eye has been dazzled by looking at it, and of the sound of a cannon for some time after the actual firing. It is the same with perception, a very vivid impression gives rise in the mind to a certain association of perceptions. The concussion occasioned by the shock may cause paralysis of the organ, which is the seat of the impression. Such are the cases of sudden death by paralysis of the brain under the influence of a violent mental shock, but without going so far as this, for a considerable time after the first impression has ceased, the association of ideas excited by it always holds entire possession of the consciousness and the sensibility to every other impression is notably diminished. It is thus that occurrences which deeply stir the current of our existence, are apt to commit great ravages in the region of the intellect, and bring about a considerable impairment of its integrity.

The perceptions and the sensorial functions—the sense of vision furnishes a striking instance of this—cannot continue in action for an indefinite period with unabated vigor. Sensibility as well as perceptivity soon becomes fatigued when too great a draft is made on them; and to avoid this fatigue, a change is indispensable. In cases where no external cause produces such a change, a new perception or a new sensation is excited by the first, in a purely subjective manner. The most common instance of this is in the region of sensation in what is known by the name of complementary colors, which is in fact a subjective contrast of colors, as the appearance of blue after looking at orange, and of violet when the eye is fatigued with green. Something analogous takes place in perception. The perceptions as well as the sensations

are connected among themselves by the same relations, obscure though they may be, of contrast and analogy. Where a perception has continued for a length of time it excites another similar or in contrast with itself; that is, it may produce a series of perceptions entirely new, or on the contrary, the mind may return to its first perceptions which remain in the ascendant.

It is very singular, for example, under the influence of ideas of sadness, produced by an external cause, to observe ideas spring up of an entirely opposite character, and even joyous. The fact of the subjective production of ideas is moreover one of the most common in the history of mind; from observations of this kind is deduced what is called the law of the association of ideas. Ideas recall each other as well by the senses in which they originate as by the analogy of the sensorial images which accompany them, as of vision, hearing, language. This last example is met with among the insane, and is very striking among those affected with mania. These patients call up and recite with great rapidity long series of rhymes which are connected by no thread of meaning, or at least by a very slender one.

Even in other senses than that of vision, in the cutaneous sensibility for example, especially when in a state of disease, we may have a sensation, a pain for instance, excited on a portion of its surface, determine on a distant point an analogous sensation, such as tingling, pain, etc., proving the tendency these distant sensations always manifest to accompany those first excited.

So long as the association of ideas does not produce new perceptions, and is limited to reproducing the old, the phenomenon is called memory. The manner of this phenomenon of reproduction is often altogether obscure

and inappreciable. Former perceptions are suddenly repeated without our being able to assign any cause for them in the antecedent ideas, in the same way that the reproduction of sensorial images takes place, which Henle has described under the name of *memory of the senses*.

As all the delicate phenomena of the association of ideas depends upon this central reproduction of perceptions, the intellect is always seriously affected whenever there is a sensible defect of memory. Among many of the insane, and especially among idiots, the impossibility of judging and reasoning correctly has its origin in the loss of memory. Ideas are retained and reproduced more readily in proportion as they are stronger and more distinct in their conception and as the brain is more sound and active. All diseases of the brain may destroy or suspend the memory, and consequently the condition of this faculty among the insane often affords a measure of the gravity of the cerebral affection. Slight modifications of the health of the brain, such as the action produced by alcoholic stimuli, may render more active, or on the other hand, considerably embarrass the reproduction of ideas, destroy certain associations which before were quick and easy, or awaken old ones which were entirely forgotten. There are but few phases of mental activity on which purely physical impressions exert so marked an influence as on the memory; nevertheless this question must not be too much regarded from a purely materialist point of view. The examples apparently so surprising of only partial loss of memory in consequence of wounds or disease of the brain, in which it might be supposed that the apparatus presiding over a portion of the mental operations had been entirely disorganized, these examples, I say, seem to be more

common than at first sight might be supposed. It seems probable that in these cases there is a general though only a moderate diminution in the reproduction of ideas. Those which have only a feeble connection with the mental constitution disappear the most completely.

In all the functions of the central organs, even in those of the spinal cord, there is memory. There is a memory of the reflex acts as well as of sensorial images, of words and of ideas. With the habit of the reproduction of facts and ideas, which becomes more and more empty and superficial, is contrasted the inspiration which brings out of ideas not yet distinctly passed into the consciousness, a new series of ideas.

5. Another consideration still, is that in the organ of perception as well as in those of sensation, the energy proper to them may be brought into activity, not only by normal external excitants, but also by internal stimuli differing from perception and sensation, and especially by the stimulus of disease. Inflammation of the choroid coat of the eye is shown by the apparition of subjective sensations of light, of luminous balls, sparks, flashes, etc. So also any irritation affecting the extremities of a sensitive nerve or even the trunk of the nerve itself, may excite subjective sensations of sound or odor or smell or in the cutaneous sensibility a feeling of cold, burning, or formication. In the same way an irritation of the brain resulting from an inward organic excitant, is manifested by unusual and morbid phenomena of perception. Just as inflammation of the vascular membrane of the eye gives rise to abnormal luminous sensations; so also in diseases of the vascular membrane of the brain, the pia mater which covers so closely the free surface of that organ and penetrates even into its substance, hyperæmia

and inflammation of this membrane determine also anomalous perceptions, (delirium,) and even mental states manifested from within outwards, (agitation, emotional excitement;) and the same thing exists, but in a greater degree, in inflammation of the brain itself. Not only do palpable anatomical lesions of the brain give rise to these disorders of perception, but a simple irritation resulting from the extension to the brain of a nervous condition seated in an organ more or less remote, such as the heart, the intestines, or the genital organs may also evidently produce the same result. The existence of a close connection between the nerves of the abdominal viscera, the brain and the cerebellum is demonstrated by experiment, and as in the healthy condition of the general system, the state of the digestive apparatus exerts an undoubted influence on the character and disposition, and on the prevalence of certain sets of ideas, so also a morbid irritation of the nerves connected with these organs often gives rise to morbid mental states which sometimes vanish when the peripheral irritation itself disappears, but which also sometimes, when once originated, maintain an independent existence.

We may state here that these organic irritations, whether in health or disease, do not generally at first excite clear and distinct ideas; on the contrary, they give rise to those vague and indefinite modifications of intellect which are known as the sentiments and emotions. The rapidity of the succession of ideas and the manner of their connection are especially modified by these organic impressions, which are combined with the movement of the thoughts and ideas, "like the balance wheel of machinery sometimes accelerating the motion it has received, sometimes on the contrary, like too heavy

a weight which hinders or completely prevents the motion." Lotze has very well described the relation existing between thought and the bodily organs. "The ulterior development of the organism," says he, "acts on the mind less by exciting clear and distinct ideas than by bringing about certain dispositions of mind and character, certain peculiarities of thought, which, without our consciousness, direct our actions and the general conduct of our lives. The impressions arising in the organism, each of which singly is feeble and undefined, and which only acquire importance and influence by their simultaneous action, exert their power on the mind, and this power, though scarcely felt in the consciousness of the individual, may nevertheless be the efficient cause which confines the mind in a set circle of fixed ideas." These dispositions of mind may, even when aided by favorable circumstances, give rise to actual delusions.

The same phenomena are met with in insanity. We shall see hereafter that almost the entire pathogeny of mental disorders consists in psychical perversions, produced by internal organic causes, and that these perversions finally give rise to delusions connected with the changed mental condition, upon which delusions many circumstances of different kinds exert a considerable influence.

6. Perception as well as sensation may be accompanied with pain or pleasure. In this respect they present a very close resemblance, which is more deserving of notice, as mental distress is one of the most important fundamental elements of insanity. In sensation, as well as in perception, the nature of the pain or pleasure is a kind of obscure sense, in the one case of elevation, in the other of restraint and self-abasement. This feeling

may refer to a single sensation or perception, which from that time is accompanied with pain; but there are also in perception as well as in sensation conditions of suffering and distress more general and undefined; the false judgment then no longer refers to a single object, but rather to all the sensations and perceptions. To this condition may be referred the sensations of weight and heaviness, of suffering of the whole body, without local pain, and when the mind is affected, those feelings of oppression, of distress and anxiety which have no real motive, and which may merely by their continued duration, give rise to painful delusions.

All the circumstances which disturb the succession and attenuation of ideas representing the conscious self, and consequently affecting the freedom of the will, may give rise to *mental pain*. An excess of excitement that calls up new ideas confusedly and without order, as well as the absence of all excitement, may occasion painful emotions, such as ennui and indifference; in the sensitive nervous system also pain may be the result of an excess of excitement as well as of the absence of the ordinary stimuli, (cold, hunger.)

The phenomena following the administration of chloroform have taught us the interesting fact that the tactile sensibility may be preserved, while that to pain is abolished; besides, M. Schiff has demonstrated quite recently that the white fibres of the spinal cord possess the faculty of conducting the tactile impressions, and that the gray substance alone transmits the sensation of pain, from which it is evident that pain has its origin in the gray substance. It is not improbable, therefore, that in the organs of perception, the phenomena of transmission are not connected very closely with those which

produce mental pain, and that the latter may be the direct result of the special irritation of certain constituent portions of the cerebral tissue. The consciousness of the derangement in the normal conditions of thought constituting mental pain, varies greatly in different individuals; thus a delicate organization may experience severe vexation in circumstances that would leave an obtuse intellect in a condition of perfect calmness, as for example, when one cannot succeed in comprehending the reasons of anything, in solving a problem, etc. But it is more especially the state of momentary irritation in which the brain happens to be, which causes a thought to be, or not to be accompanied with pain. The same circumstances may at different times produce very different impressions. The impression produced by any given fact is not the same, for example, if the fact occurs after taking a glass of wine, or just after returning from the play, as if it had occurred after having already experienced some vexation. A nerve affected with neuralgic pain does not behave as it would in a healthy condition; the slightest touch on such a nerve is extremely painful. It is the same with the brain; there are certain states of that organ in which every psychical act provokes mental pain, in which every thought is suffering. But the state of actual irritation of the brain is the sum of all antecedent states of irritation added to the causes of irritation acting at the moment. Among individuals who have long been subject to a high degree of mental suffering, either in consequence of an original predisposition, or by reason of painful mental impressions, a general perversion of the moral feelings comes on gradually, which is sometimes persistent, at others transient; to the unhappy sufferer everything

seems sad and gloomy, and one whose life is filled with misery and sorrow falls with great facility into permanent sadness or misanthropy. We shall see that insanity very generally commences in this way; everything is perverted into a source of suffering; it is not rare that this condition of mind is the result of actual sorrow and affliction. In such cases we discover beforehand a strong tendency to mental alienation in that impressibility, in that tendency to perpetual unsettlement of mind which makes every mental impression awaken confused judgments in reference to facts, which prevent the patient from seeing things as they really are, and fixes his thoughts more and more upon himself until he becomes a thorough egotist and hypochondriac.

Mental as well as physical pain has this peculiarity, that it takes the first place in the mind, and must have undivided possession of the consciousness; and as the latter, when it reaches a very high degree, is followed by insensibility, so mental pain when very intense brings on a state of complete indifference to the ordinary normal excitants. The pupil of the mental eye contracts, and the object with which it is occupied, *mental pain*, which has taken forcible possession of the mind, can alone reach the seat of consciousness. In hyperæsthesia of the external senses, the eye for example, the latter withdraws itself from the light which it naturally seeks when in health and turns to the darkness. It is the same with mental pain; the patient avoids all communication with the world, because the slightest contact with it is painful; he no longer takes any part in what is passing around him and becomes more and more shut up in himself. Mental pain has other important consequences. By reason of this shutting up of the

mind all other sensations are painful. Ingenious in tormenting himself, constantly occupied with his own condition, the patient becomes as it were a stranger to the thoughts which formerly interested him. He loses sight of them for the moment, and when he turns to them again the inability of which he is conscious to take part in them as he did formerly, becomes a new source of grief. As every mental impression gives him suffering, a disposition arises to ignore and to avoid everything; kindness and affection give place in his mind to gloomy suspicion and hatred. On the other hand, the law of causality, which is inbred in the human mind, drives him to seek for the causes, only to be found in himself, of his mental distress. He looks for them in the outside world, because a man naturally looks there for the impressions that influence his mental condition, but as these causes do not really exist there, it results that the ideas and reasoning and conclusions which the patient expresses in regard to them are false. These attempts which the patient makes to seek for and explain the causes of his mental disturbance, we shall see hereafter constitute the principal source of the delusions of the insane, and we shall discover that in this search for etiological explanations, there is presented to the mind not only perceptions in the strict sense of the word, but also under the influence of the fancy and of excitement of the sensorial functions produced by the imagination, hallucinations and illusions of different kinds, by the aid of which they seek to explain their condition.

Physical pain always affects the tone and movements of the muscular system. Sometimes the patient is afraid to make the slightest movement, and instinctively keeps the suffering limb at rest; sometimes the power of

motion is really affected and there is a slight degree of paralysis, and occasionally we observe morbid muscular action, contractions or muscular spasm. The intellectual life has equally its activity, which mental pain also affects. Sometimes the power of the will is paralyzed, the patient has no mind of his own, he remains motionless, just as we often see physical pain accompanied with a state of profound depression of the central organ of innervation. Sometimes, on the contrary, the will takes hold in a spasmodic way of an object; a condition which may be overcome by a sudden exertion of the will. Sometimes, finally, the pain excites a violent, and so to speak, convulsive effort which is without an object, and is too energetic to be of long duration. But, as in muscular sensibility, the brain is conscious of the condition of the motor nervous system; so also it is conscious of the movements of the intellectual life. This morbid impotence of mind, this absence of the will, this concentration of the attention on a single subject, these spasmodic efforts of volition are recognized by the patient as a kind of painful reaction caused by his own voluntary efforts. All this still more aggravates the mental suffering of which he is already the victim.

The different states of *mental pain*, such as anxiety, fear, sadness, sorrow, etc., whether produced by external or internal causes, have the same effect on the rest of the organism as physical suffering. Sleep disappears, nutrition suffers, and emaciation and a state of general exhaustion follow. The mental distress alternates at times with neuralgic pains and with spinal irritation; in other cases it gives rise to neuralgia; it is often accompanied with that pain in the epigastric region which is so common in spinal irritation, and sometimes with differ-

ent grades of insensibility to atmospheric changes and to physical pain excited by any external cause.

The pleasurable emotions give results diametrically opposite to the above. I will leave to the reader the task of seeking for himself the analogies which these states present in respect to both their nature and consequences, with agreeable physical sensations.

As the special function of the brain, perception is very closely related to activity of the senses, so also there exists between the acts of the motor nervous system, originating in the same organ and perception, a very intimate connection. This relation bears a very great resemblance to that existing between sensation and perception.

[*To be Continued.*]

THE TRIAL OF MARY HARRIS.*

The case of Mary Harris, tried in July last for the murder of Burroughs, is in some respects extraordinary, even among the strange social and political events which make up the daily history of our Federal capital. That an apparently deliberate murder, done in the satisfaction of outraged feelings, should be justified not only, but applauded by the people of Washington, is not, we know, without precedent. Individuals chosen to uphold the national dignity, and high in social position, have furnished repeated examples of this kind. Jarboe shot dead the seducer of his sister, and in like manner Sickles murdered the paramour of his wife. In these cases, too, the plea of insanity was set up by the defence, and through it a triumphant acquittal gained.

There was, then, nothing novel in the motive or the excuse for this homicide, and but for one circumstance, perhaps, the well-worn sensibilities of a Washington public would have given no sign of marked excitement. The new feature in this case was, that the murderer was a woman. A woman, young, of pleasing person and manners, a stranger and unprotected, what an irresistible appeal to the sentiment strongest of all in the bosom of an American! Here, we may with the most charity suppose, is the source of that extreme sympathy and favor shown this wretched girl. For no sane person can believe the man who disappoints a woman by refusing to fulfil a promise of marriage, is worthy of death.

* Official Report of the trial of Mary Harris for the murder of Adoniram J. Burroughs, before the Supreme Court of the District of Columbia, Monday, July 3, 1865. Washington, D. C., 1865,

Nor is such a penalty to be thought of for even the despicable wickedness of a feeble and abortive attempt to obtain a power over her good name, as a means of defence against her. Yet this, at furthest, as we shall find, was the extent of Burroughs's crime.

In saying thus much we have not referred to the assumed insanity of Mary Harris, because there is no reason to suppose that public sympathy for her was based, in any degree, on this theory. There was nothing in her history, or the circumstances of the homicide, to suggest insanity to the ordinary observer. If she was insane, hers was one of those cases capable of being detected only by an expert, or by one having the closest and most protracted acquaintance with her.

She was of Irish descent, and her parents were Catholics, in a humble condition of life. At nine years of age, she was employed in a millinery and fancy goods shop, kept by a woman, in Burlington, Iowa. At this time she first made the acquaintance of Burroughs, then about twenty-three years old, and of some education and knowledge of the world. He was at first engaged in business near where she was, but afterwards failed, and was employed as book-keeper in the same shop with her. She seems to have been a bright and pretty child, and he was so much pleased with her as to fondle and caress her, take charge of her education, and finally to introduce her into the society in which he moved. After four years, in 1858, he left Burlington, and began a correspondence with her, which continued until the summer of 1863. His letters show the closest intimacy of the parties, as lovers, and the subject of marriage is freely alluded to. Several times the day of the ceremony was fixed, but it was deferred for plausible

reasons. Her father strongly disapproved of the intimacy and correspondence, and treated both parties with severity. For this reason she left her home, and went to Chicago, where Burroughs then was. After being employed there a short time, she returned to Burlington, but soon went again to Chicago, where she was engaged as clerk in the shop of the Misses Devlin. In the meantime Burroughs, who seems to have been without stability of character or practical talent, had not been able to enter the army, as he wished; had given up many plans, such as going to California, and to Pike's Peak; and finally had gone to Washington, where he entered upon a clerkship in one of the public departments. Now came the first sign of estrangement on his part. In the spring of 1863, when their marriage had been fixed for the coming June, he wrote to her, promising if she would join him in Washington to get her employment similar to his own. Not a word was said of marriage. On the 7th of August following he, being then in Chicago, wrote her again, asking an interview. They met a few days after this, and parted as lovers. On the 24th of the same month, he wrote her for the last time under his own name, protesting his friendship for her, and excusing his failure to fulfil his engagement of marriage by reason of his want of means. On the 15th of September, Burroughs was married in Chicago to another lady, and left almost immediately for Washington, whence he did not return for more than a year.

Thus far the leading facts of this history are undisputed. But it was charged by the defence, and proven pretty certainly, that Burroughs was the author of two notes received by Mary Harris, written under an assumed name and in a disguised hand, inviting her to

meet him for the purpose of cultivating an acquaintance, at a certain house in Chicago, on a day and hour named. She went with one of the Miss Devlins, having first ascertained the house to be a house of assignation, and, without entering it, learned that the person who had expected her was not there.

The evidence shows that the desertion of Burroughs, under the circumstances above detailed, made a strong impression upon Mary Harris. She had been a quick-tempered, proud and self-reliant girl, amiable, and cheerful in disposition, though undisciplined in mind and character. She now became melancholy, "at times almost frantic, and would not know what she was doing or saying." Again, she would "cry almost incessantly for two or three days; then at intervals, sometimes every night, and sometimes two or three nights in a week, for two or three weeks." This, according to Louisa Devlin, was immediately after the desertion. Late in September, Dr. Fitch was called to see her. He found her suffering under "severe congestive dysmenorrhea," for which he prescribed at various times, when called in, for about a year. She was somewhat better of these attacks at the end of the treatment. There was much nervous excitement, but this differed "in intensity rather than in character" from ordinary cases. The Doctor knew nothing of her private affairs, but "only what he saw of her physical condition."

In respect to her mental condition, about this time and afterwards, the testimony of Louisa Devlin is as follows:

Q. She was to have her breakfast in bed? A. Yes, sir, one morning, when I had scarcely perceived it was daylight, I saw her dressing. I said nothing; and supposing me to be asleep, after she was dressed she came to the bed, and leaning over me, said: "I have to leave

you, but I am sorry to have to leave you." I put out my hands and caught her around the neck, and asked her what she was going to do. She would not tell me. I insisting on knowing, she then said she was going to have a walk on the lake shore.

Q. Was she quiet in her manner at that time? A. She was rather insensible. She looked to me as if she did not know what she was doing or saying. When I caught her around the neck, I thought she was going to run out of the room. I then got her to undress herself and get into bed.

Q. Do you now recollect what period of the year that was? A. It was in November.

Q. After that, do you recollect anything remarkable in her conduct that happened during the same winter? A. Shortly after, she went into the yard one day with a large window brush, and struck my sister two or three times over the head, without any provocation whatever from her.

Q. Do you remember any other incident during that winter? A. Yes, sir. She was not feeling very well one evening, and she called me to the bedside, and held me by the wrists. I begged her several times to let me go; but no; she held me tighter, seeming to have more strength than usual. She held me for about a quarter of an hour. That she did several times.

Q. Do you remember any other incident during that year, and before you went to Janesville? A. I remember of many instances where she commenced to tear up books, clothing, and anything that she could lay her hands on. At another time she ran at my sister with a carving-knife, to stick her. That was the second Sunday in January, 1864.

Q. Do you know what had passed between them just before then, and what was the subject of conversation? A. No, sir. We were at dinner; and without anything being said that could at all offend her, she got up and ran at her with a knife, to stick her.

Q. You did not hear your sister make any remark to her yourself, before this attack with the carving-knife? A. No, sir. My sister often told me that she was crazy.

Q. How did you manage to prevent her striking your sister with the carving-knife? A. I held her by the shoulders. Then she tried to leap out of the window into the street. I had to open the door and let her go, but sent my sister out to watch where she went. She at first ran around the street, not apparently knowing where to go,

but at last went into the Tremont House. I went and tried to get her home, but she would not come. It was then near dark; and when it got dark she came home by herself.

Q. Was that the evening you got Mr. O. H. Harris to go after her?

A. Yes, sir.

Q. He is no relation of hers, as I understand? A. No, sir.

Q. Do you know of any subsequent instances of excitement before you went to Janesville? A. Yes, sir; many. One little instance that happened at Janesville, some eight or ten days before she came down to Washington, I remember particularly.

Q. That was last December, then? A. Yes, sir. My sister, (not Jane, but another sister,) having opened a handsome silk quilt that she was piecing, to show it to us, Miss Harris looked down at it, and commenced tearing it.

Q. Describe what kind of a quilt this was? A. It was a fancy silk quilt, pieced.

Q. What did she say when she took hold of it? A. She did not say anything. She seldom ever spoke when she was in those excited ways.

Q. How was she prevented from tearing that quilt to pieces? A. I took it from her, and then succeeded in getting her into her room, when she hallooed repeatedly, "Let me out, until I spread all the preserves in the house over the carpets."

Q. State whether, on such occasions, you required any assistance in holding her, or whether her strength was the same as usual, or not? A. Yes, sir; when in these spells, I had oftentimes to have assistance. Her strength was much greater on such occasions.

That these were the freaks of a girl voluntarily yielding herself to the control of her wayward feelings, and desirous of that morbid sympathy which such conduct would awaken in persons of her own sex and character, would appear from the cross-examination of this witness. She took no precaution to prevent future harm to herself and sister, or their property, after these manifestations. Furthermore, she observed that Mary Harris had "an appreciation of her duties, and the moral qualities of any act she committed—was capable

of deciding what was right and wrong—as well as at other times.” Her sister, who was assaulted with a carving-knife, and beaten over the head with a window brush, says: “We had no quarrels. I always said to my sister she was crazy, and that I could forgive her for anything she did.” And again, Louisa Devlin, in answer to the question, “She never did any serious injury to any one?” says: “No, sir.”

In the fall of 1864, Mary Harris exhibited the revolving pistol with which the murder was committed. On this point the same witness testifies: “I asked her what she bought it for. She said she was not the only lady who carried a pistol. Shortly afterwards she said to me that she believed Dr. Burroughs and his brother had some plot against her. Whether she said it in reference to the pistol or not, I do not know. It was during that same day she told me.” And again, to the question, “Did you not suggest to her the impropriety of her carrying a pistol?” this witness answers, “I did not.” But the pistol had been purchased nearly a year before this time.

In July, 1864, Mary Harris employed counsel in Chicago to bring a suit against Burroughs, for breach of promise of marriage. She was unable, however, to procure the service of a writ on him during his visit of three weeks to that city, in the September following, and, contrary to the advice of counsel, started for Washington about the 1st of January, 1865. On the 6th of January, she came to board at the house of Mrs. Fleming, in Baltimore. Mrs. F. testifies: “She said her business was to go to Washington; that she was not very well, and was stopping in Baltimore, for she did not know how long. Her object in going to Washington,

she said, was to collect money for the Misses Devlin. The prisoner remained at our house until the 30th of January, the day she came to Washington." The same witness testifies to the following conduct of Mary Harris, on the evening of the day before she left for Washington: "The Rev. Mr. Dudley was at the house, and while he was playing a hymn on the piano, in the parlor, she got up, picked up one of the ornaments in the parlor, and went round to take up a collection. I thought that very strange conduct." This witness continues: "She complained very much of her throat, and of being very weak. She had very little appetite. Sometimes she would be sitting alone, apparently engaged in deep thought, and then she would get up and all at once commence to sing a love song—

First she loved him as a brother,
And he doubted her when her love was stronger.

Then she would come to where I was, and appear to be in very good humor. I went to the cars with Miss Harris, and gave her my ticket. She was to return that evening. We were to go to a lecture together."

Between two and three o'clock of that day, the 30th of January, Mary Harris inquired of the door-keeper of the Treasury Building for Mr. Burroughs. Being told that there were several of that name on his directory, she pointed out the name of A. J. Burroughs on it, and asked what bureau he was in. Learning he was in that of the Controller of the Currency, she asked if she could not wait at the door until he came out. She was answered that it would be a difficult matter for her to see him when he came out, as there were four entrances, and he, being employed in the farther part of the building, did not often come out that way. She then asked

for direction to his office, which she received. Opening the door, and looking in to convince herself of his presence, she retired into the hall and took her stand behind a high clock next the door. After a short time, Burroughs and a fellow clerk entered the hall, and were passing the door-way when the fatal shot was fired. Burroughs turned round instantly, threw up his hands, exclaimed, "Oh!" and ran away from his murderer. She immediately stepped into the centre of the hall, took aim at Burroughs as he was running, and fired a second shot, which narrowly missed his head. He lived fifteen minutes after being shot, and died at twenty-five minutes past four o'clock.

Mary Harris was arrested a few moments after the murder, as she was passing from the building into the street. She showed great distress of mind—throwing her arms about, pulling her hair, and getting down on her knees to the officer. When asked what she shot the man for, she only replied, "Why did I do it? I would give my life to save him," etc. To Hon. Hugh McCullough, then Controller of the Currency, she protested, with much emphasis, that Burroughs had done her no other injury than in the violation of his engagement. To the policeman who took her to the jail, she said that Burroughs "had ruined her; had caused her to be driven from her home and friends; had seduced her, and taken her to a bad house in Chicago; and that she had told him if he didn't comply with his promises she would have revenge on him, at the risk of her life." She stated further, that she had procured a pistol in Chicago, and had come on here with that determination; that she had arrived here that morning, and had accomplished her object. She also requested this officer to send a tele-

gram to Miss Louisa Devlin; and when asked what the wording of it should be, said: "You know just as well as I do." To his inquiry, "Shall I telegraph as if it were yourself?" she said, "Yes." The words sent were: "I have arrived in Washington, and shot Burroughs. Come on immediately."

We now come to the testimony admitted solely with reference to the mental condition of the accused. Of this kind were the depositions of several parties in Iowa and Illinois, who had known of the intimacy of Burroughs and the accused, their engagement of marriage, and his entire possession of her affections. To the same purpose were some ninety-two letters, written by the parties between November, 1858, and August, 1863. His letters are silly and extravagant to the last degree, and show great lack of true respect for her, and refinement of feeling. This testimony was offered on the part of the defence for the purpose of proving the cause of insanity of the accused, but the Court ruled that "the defence of insanity is a perfect defence in itself, with or without cause, if made out to the satisfaction of the jury;" and, therefore, that the testimony "ought to be confined to any occurrences, any acts on the part of the prisoner, showing insanity or want of accountability in regard to questions connected with the deceased." Afterwards, however, this testimony was admitted as proof of *a* cause of insanity in general; not of *the* insanity. The Court also ruled to admit the opinions of non-experts on the question of insanity, when based upon important facts within their observation. The proper form of question to put to an expert, was stated by the Court to be this: "Assuming such and such

facts to be proved, do they establish the insanity of the prisoner."

In respect to the mental condition of the prisoner while in jail, Mr. Charles H. Phelps, of Burlington, Iowa, who had known her from a little girl, and saw her several times in the first month of her confinement, testified that "her eye wore a wild look; she was incoherent, and in relating anything she would in a few minutes contradict herself."

Hon. Hugh McCullough testified that "Miss Harris was deeply excited, and seemed to be in despair—in a frenzy." But when her attention was fixed for a moment, "she answered questions put to her as if she comprehended them—clearly and coherently—but would immediately return to exclamations, pacing the room, and exhibited every indication of being perfectly overwhelmed."

Joseph H. Bradley, Esq., senior counsel for the defence, interested himself greatly in his client during her imprisonment, and was examined as a witness in her behalf. About the last of March, he found her nervous and excited, her pulse counting more than 110. "The top of her head was so warm as to be unpleasant, and yet her hands were cold. The pupil of the eye dilated so as to cover the eye very nearly, leaving only a band, as it were, surrounding it." She talked of Burroughs, "with a manner showing no consciousness of having done wrong to any one but his wife." This interview was at the time of a menstrual period of the prisoner, and, generally, her mental and physical condition are noted only at such a time. We may state here, that the line of defence adopted was that of paroxysmal, moral insanity; the insanity due to combined physical and

moral causes, dysmenorrhea and disappointed affection, and the paroxysms occurring at the menstrual crisis, on the subject of her wrongs being introduced, and perhaps at other times. At her next monthly period, witness found the prisoner bathing her head with a handkerchief and cold water. She was sitting in an open window, with a full stream of cold air falling directly on the back of her head. Yet the top of her head was hot, and her pulse was nearly 120. She said: "They say I killed Burroughs, and have locked me up, and it must be so; but I can't realize it. I liked Burroughs. I can see him now. I have seen him in this very chamber since I have been here. It can't be so." Witness "talked with her till the tears began to flow, and then she calmed down; and rapidly became blythe and cheerful." But "in a short time the paroxysm, if I may so call it, returned." That is, she began again to talk excitedly of herself and her wrongs. Her pulse, which had fallen, rose; and her hands became cold, and her head hot again. Witness "stayed there nearly two hours, and left her calm and gentle as I ever saw any one, and, as I thought, in full possession of her faculties. The paroxysm went off," as before "with a flow of tears." At the end of another month, prisoner's attendant comes to the office of witness, and says: "Miss Mary wants to see you, and I do wish you would go, for no one else seems to do her so much good when she is in this way." The same physical and mental conditions are noted as before; only the "paroxysm" is more severe. After some preliminary passages, the witness says: "She advanced rapidly towards me, wringing and twisting her handkerchief, and saying, almost fiercely, 'I am not going to stay here any longer, Mr. Bradley, I am going

out—I am. I won't stay. I want you to take me out, Mr. Bradley.' I replied, 'Yes, Miss Mary, that's all right; I don't wonder at it. You have had a long and hard time of it, and I would like to get you out.' 'Then take me out—take me out now. I won't stay here a minute.' 'But look at those bars, and—' 'Bars! bars! what do I care for bars?' " At length she seats herself, and the witness takes occasion to apply bay rum and water to her temples. Becoming less excited, she says: "Mr. Bradley, I can't stay here; I can't sleep; I have not slept for two weeks; as soon as I begin to close my eyes, I am roused up; the cry of murder is ringing in my ears." After much more of this talk, the witness "tried to soothe her; and falling into her own vein, by degrees the excitement subsided, a tear swelled up and filled her eye, and hung on the lid. I wiped it off with my own pocket handkerchief."

But we must spare our readers any further detail of these interesting scenes, and hasten on. The witness concludes with the following opinion in respect to the prisoner's mental condition:

I have no hesitation in saying that Miss Harris is not only of sound mind, but has an uncommonly good mind. I have no hesitation in saying, indeed I am perfectly confident, that in certain conditions of the system her mind is so far affected, not by nervous irritation alone, but by moral causes, that when a fact or substance is suddenly presented to her mind, connected with these moral causes, or during this state of excitement of her mind, that she is incapable of thinking and acting in regard to that subject with reason or discretion; and that she is subject to certain impulses which control her will in reference to the same matter; and that is what I understand to be paroxysmal insanity from moral causes.

We now come to the testimony of Dr. Charles H. Nichols, Superintendent of the Government Hospital

for the Insane. Dr. Nichols visited the prisoner several times while in jail, and listened to all the evidence brought out on the trial. He was the only witness examined as an expert, and although enough may not appear in the report of this case to justify his opinions, yet it will none the less be acknowledged that his testimony is highly creditable to his professional learning and experience. It must not be forgotten, that the conclusions of an expert in insanity are in part based upon a certain faculty of detecting mental disease, which is derived from long contact with the insane, and which cannot be wholly accounted for to other persons, or even to himself. Such a special sense, created by experience, constitutes expertness, in mental and physical diseases not only, but in many of the arts of life. We cannot, then, analyze and weigh the testimony of Dr. Nichols as if it were that of a non-expert, and based upon facts which may be, and in fact are, all before us. In respect to the testimony of Mr. Bradley, even, we should have no such hesitation. It was either that of an eager and unscrupulous advocate in behalf of his client, or, more probably, of a kind and too susceptible old gentleman, won over by the seductive manners, and the real distress, of an hysterical girl. In some of the other medical witnesses we recognize a pardonable ignorance of the subject in question. In all—and we include even the Court and counsel—the influence of a strong popular sympathy with the accused is plainly apparent.

The following is a general statement of the views of Dr. Nichols :

Miss Mary Harris's brain and nervous system are large and active. The nervous temperament largely predominates over the other temperaments of physiologists. It appears that she has been affected

with painful dysmenorrhœa, from the autumn of 1863 to near the present time. Her mental faculties are stronger and more active than the average of women. Her temper is highly sensitive and spirited, but kind and placable. She has not enjoyed the advantages of much moral or mental training. Her character was that of an uncommonly sprightly and engaging girl, who had attracted the notice and regard of highly respectable gentlemen and ladies in Burlington, Iowa, who esteemed her for her intelligence, honorable ambition, and virtue. Both her physical constitution and health, and her mental and moral constitution are such as to render her unusually susceptible to either a physical or moral cause of insanity. She has been exposed at the same time to the physical and moral agencies which frequently cause mental derangement, and those to whose effects she was peculiarly susceptible. 1. Painful dysmenorrhœa. 2. Disappointment in love—the sudden and unexpected breaking off a long continued engagement of marriage, in a manner most calculated to deeply wound the sensibilities of a nervous, proud, and virtuous young woman, and to disturb her reason. From the moment of this *disappointment in love*—this great shock to her delicate moral sensibilities—there was a material change in her spirits and health, and she at times exhibited acts of insane violence. She was unquestionably insane at times during the period between the disappointment and the homicide. The circumstances attending the homicide by *her*, are better explained by the assumption that it was an act of insanity, than that it was an act of malice or revenge. The state of her body and mind since the homicide is calculated to corroborate the theory that there is a continuous morbid susceptibility to mental disturbance, and that the homicide was an act of insane violence.

In reply to questions, Dr. N. further states, that menstruation “is a frequent cause of mental disturbance;” and that he “does not consider a knowledge of right and wrong, in the abstract, as a test of insanity; nor even a knowledge of right and wrong in respect to any criminal act that may be committed by an insane person.” The remainder of Dr. Nichols’s direct examination is reported as follows :

Q. Describe to the jury what is understood in your profession by the term “insane impulse?” A. By “insane impulse” I understand

that an individual is impelled, in consequence of disease of the brain, suddenly to commit an act that he is unable to restrain himself from committing. In some instances there is, probably, a consciousness of the nature of the act; but in most instances I think there is not.

Mr. Bradley. Do you mean physical disease, or one created by the causes to which you have referred, when you speak of a diseased brain? *A.* Perhaps it will be a sufficiently categorical answer for me to say, that I believe that the brain is always diseased, either in substance or functions, in every case of insanity.

Q. Now, doctor, what is the effect—recognized effect, by men of science—upon the human mind of continuous and protracted thought upon any one subject, and especially if accompanied by violent emotions of disappointment, or even of exciting joy? *A.* Such mental habits are frequently the exciting cause of insanity.

Q. State if it is so in one case more than in the other? *A.* I am under the impression that disappointment in love is a more frequent cause of insanity among women than men.

Q. State whether this protracted thought upon the subject of disappointment is, or not, calculated to give rise to this character of the mental disease that you speak of as “insane impulse” upon the subject of the bereavement. *A.* I should think it was; though every species of insanity may be produced by a single cause; and, vice versa, every known cause of insanity may give rise to one form of that disease. .

The cross-examination of Dr. N. was protracted, and we can give only the most important portions of it. His opinion was chiefly based upon the testimony of Dr. Fitch and the Misses Devlin, upon the facts noted by Mr. Bradley, and upon his own observations:

At the last interview I had with her, she was suffering from the erysipelas, described by Mr. Bradley, and she then exhibited more nervous agitation than I had observed at the previous interviews. It was the evening of the day of the funeral of our late President; and she expressed great apprehension lest further violence might be committed by his assassins, and particularly to herself.

Q. Doctor, will you be kind enough to state the technical name of the insanity with which she was affected? *A.* I should denominate it a case of periodical or paroxysmal mania. *Q.* Will you state its

nature and character, and its effect upon the person? A. The term, mania, is applied to that kind of insanity in which the excitement is great and general. The term paroxysmal, or periodical mania, is applied to that form of mania, the active symptoms of which recur sometimes pretty regularly, and at other times at irregular periods; and between them there is a greater or less remission in the activity of the disease.

While under the influence of these paroxysms of mania that I suppose existed, and still exist, I presume her mind was so far affected as to cause her to have violent impulses, and to be unable to restrain them; and also to entertain either unfounded views and feelings, or entertain those that had a foundation with a morbid energy, so as to make them appear to her much more important than they would in health.

Q. Do you think that while under the influence of this mania she was incapable of giving a rational answer as to the moral quality of her acts, or determining or estimating the moral qualities or criminal nature of her acts? A. My impression is, that Miss Harris, if her attention had been arrested so as to give a direct or categorical answer to any question of that kind, would probably have given a correct one.

Q. Do I understand you to say, Doctor, that while under the influence of this periodical mania, that her will was so far impaired as to render her unable of self-control, and render her acts involuntary? A. I think so.

No amount of premeditation and preparation to commit a homicide, in my judgment, precludes the idea that that homicide was an insane act. I, however, deem it equally due to the truth of science to say, that if there is evidence of premeditation and preparation, a much closer scrutiny should be made in respect to the existence or non-existence of insanity, if insanity is supposed to exist. That, in other words, such premeditation and preparation are calculated to throw more or less suspicion or doubt upon the existence of insanity, or that the act was an insane act. If the facts cited in the first part of your question were proved to my satisfaction, it would not alter my convictions in this case, that the act of homicide was an insane act.

Q. My object is to get at the degree of insanity. I want to know whether a party so affected as you describe would be capable, under

such circumstances, of understanding the moral character and quality of the act? A. I can answer that directly or categorically by saying "Yes," but by saying that in my judgment it was an *insane* act, I cover, it seems to me, the question of responsibility.

Q. What I wish to know is in determining, as a scientific gentleman, whether a person is insane or not, laboring under the species of insanity to which you have testified, what effect would it have upon your judgment in determining that question, if it appeared that the party was prompted by a spirit of revenge or hatred against any particular person. A. To that question I would make the same reply that I made to the question in relation to the effect upon my judgment of premeditation and preparation, substituting the words revenge and hatred. Q. Are they not as a general rule inconsistent with the idea of that insanity to which you have testified? A. I can hardly say that, as a general rule, they are. If those motives do not appear to exist I should the more readily conclude that it was a case of homicide by an insane person—an insane act.

Q. What, in your judgment, is the present condition of the prisoner's mind? A. I will repeat what I said the other day in regard to that. It is this: The state of her body and mind since the homicide, is calculated to corroborate the truth of the theory that there is a continuous morbid susceptibility to mental disturbance, and that it, (the homicide for which she is on trial,) was an act of insane violence. Q. Do you mean to apply that to the condition of the prisoner at this moment? A. Yes, sir.

Q. Now, doctor, be good enough to state, with as much minuteness as possible, what facts are in the testimony of the other witnesses as to her condition and conduct prior to the time of the homicide, that, in connection with your own observation, enable you to form an opinion? (Objected to. Objection overruled.) A. The Misses Devlin testify to a material change in her physical and mental condition, immediately following a disappointment. That change, in itself, is a morbid one—is disease. The *character* of the change was such, immediately upon its occurrence, as to indicate either mental disease or a susceptibility to it. She then exhibited, from time to time, what appeared to be symptoms of actual mental disease. The symptoms to which I refer were the nervousness and excitability, the loss of sleep, the loss of appetite, the loss of flesh, and the change in her

spirits—her mental depression. Those, I believe, are all the principal features of the change first noticed.

Dr. Fitch testifies to her suffering under a painful and severe form of dysmenorrhœa, shortly subsequent to the disappointment. It seems to me impossible to do justice to science and speak of the symptoms simply, without connecting them with the cause, and showing how they harmonize, under your question.

In the first stage of the case, I perceive a constitutional susceptibility to mental disturbances from certain causes. I find from the testimony, as I think, that those causes existed, or occurred. I then find that her moral and womanly sensibilities were deeply wounded ; that she suffered from a painful dysmenorrhœa. These were exciting causes of insanity, and occurred independently of the constitutional tendency to mental disease. Then it seems to me that the manifestations of a particular form of insanity continued from time to time in the continued emaciation, irregular and insufficient sleep, the depression of spirits, and an occasional outbreak of insane violence, of a character which harmonizes with the form of disease that I suppose to have existed. Those instances are the attack upon Miss Jane Devlin, upon a customer in the store, the cutting up the quilt, (which was, so to speak, a very *natural* insane act,) her effort to leave the house at such an unseasonable hour at that season of the year, (the winter,) and in her state of health, connected with the remark which indicates—I do not think it *proves*—some indefinite purpose in regard to her own life. The remark itself, in connection with her depression of spirits and state of mind generally, gave rise to the suspicion in my mind that I have indicated.

Q. Now, Doctor, you have heard all the circumstances of the homicide, will you be good enough to indicate what symptoms of insanity you are able to mention that have been adduced here in evidence on that subject? A. It is due to science to say that, so far as I understand the circumstances connected with the homicide, as testified to in my hearing, they do not of themselves prove the existence of insanity ; though I think they were in harmony, in the main, with what usually occurs when an insane person commits a homicide. There appears to have been no effort to commit the act secretly. The best opportunity of committing the act was not embraced, as I think a sane person would have done. There were no efforts to escape ; no attempt to palliate the crime by alleging provo-

cation. On the contrary, she expressed her sorrow that she had done it; and her great distress in consequence.

Q. Will you please state all the facts adduced in the testimony to which you have listened, which, outside of your own observation, you predicate any connection with these other facts—the opinion of insanity? A. My view that this is a continuous disease, or a susceptibility to disease, aside from what I saw of Miss Harris myself, is based mainly upon the testimony of Mr. Bradley. He testifies to so many incidents that I find myself unable to mention them all; but I recollect his mention of the frequency of her pulse, the manifestation of great nervous and mental disturbance in the expression of unfounded apprehensions, if not positive delusions; loss of sleep, and insensibility to cold. Q. Will you please give us some idea of the difference between the condition of the mind when in a state of actual disease, and in a state of extreme susceptibility to disease, of which you have spoken; and whether the condition of extreme susceptibility is not actually a condition of disease? A. The words I used were, I think, *susceptibility to mental disturbance*; and by those terms I mean, if you please, actual disease. Q. Then you regard the prisoner as actually diseased in mind from the date of her disappointment to the day of the homicide. A. Yes, sir. Q. You speak of the time continuous, the whole period? A. Yes, sir. Q. Be good enough to speak of the condition of her mind from the date of her disappointment to the date of the homicide, with reference to the sanity or insanity of the party, and to the responsibility or irresponsibility of the party during that period? A. I think that during the period referred to Miss Harris may have committed, and probably did commit, a great many acts for which she should be held to legal and moral responsibility; but that she was liable, at times during the period referred to, to commit acts arising from mental disease; in other words, that were associated with an active manifestation of mental disease, for which she should not have been held, or be held, legally and morally responsible, is also true. I am quite indisposed to go into a disquisition voluntarily on this or any other branch of insanity; but perhaps it is due to myself and to truth to say that, in my view, for an insane person to be irresponsible for an act, the act must grow out of the insanity; that comparatively few persons are so insane as not to do many acts for which they are responsible, and for which they should be held responsible.

Q. Then, Doctor, I will ask you if these paroxysms of insanity, in your theory of the case, were liable to occur at any time, irrespective of the appearance or non-appearance of any one individual? A. My belief is—at least my strong impression is, and I do not feel so certain upon that point as I might do under a different state of facts—but my belief is that paroxysms were more likely to appear at the monthly periods; but I think she was liable to have them at other times, that they were likely to occur independent wholly of any immediate exciting causes, and that they might appear at any time. A little indisposition arising from cold, a bilious condition, fatigue, or anything of that kind might produce a paroxysm of excitement.

By Mr. Hughes. I understood you to say in your cross-examination, that in cases of this kind the act proceeded from insanity? A. Yes, sir. Q. I desire you to give your opinion from what you know of this case, whether the act here proceeded from an insane impulse? A. *I am of opinion that it did.*

Dr. John Frederick May, a general practitioner, residing in Washington, was also sworn. In a hypothetical case given by the prosecution, he should not be satisfied that insanity was present. In another case, illustrating the theory of defence in this trial, he judged the supposed homicide to be “the act of a person at times laboring under mental derangement.”

Dr. Young, physician to the jail in which the prisoner was confined, saw her generally every day, but had never observed any indication of insanity.

Dr. William P. Johnson, also a practicing physician in Washington, was not very clear in his views as to the prisoner's mental condition. The following is the conclusion of his testimony:

Q. Doctor, will you state what is the inference, treated medically, from these facts, upon the question of the condition of the mind? A. I should have said that this patient was laboring under this hysterical condition, and I want here to explain what I mean by hysterical. The ordinary acceptance of that term is not that which is meant by it medically. It is ordinarily understood as something more or

less voluntary, as proceeding from a weak mind, and that the person, therefore, is nervous, in the ordinary acceptation of that term. By the term, as used medically, we consider an individual suffering from hysteria as irresponsible for any act which she might commit. It is just as impossible for them to prevent violence as it would be for them to prevent being drowned, if thrown into water deep enough, and there allowed to remain.

Dr. Thomas Miller concurred entirely in the views and opinions expressed by Dr. May.

Dr. F. Howard gave the following as his opinion on the hypothetical case put by the counsel for defence :

I would suppose the patient thus described to be subject to mental alienation, and that she was subject to insane impulses—possibly suicidal or homicidal mania.

The prosecution and defence, respectively, submitted a series of prayers, in accordance with which the Court was requested to instruct the jury. We shall notice but two of these.

The following, submitted by the defence, was granted :

If, at the time of committing the said acts as aforesaid, the prisoner was moved thereto by an insane impulse controlling her will and judgment too powerful for her to resist, and said insane impulse arose from causes physical or moral, or from both combined, not voluntarily induced by herself, she is entitled to a verdict of not guilty.

Likewise the following, submitted by the prosecution, was adopted, with the important addition, by the Court, of the final sentence, which we have put in italics :

If the jury find from the whole evidence that the deceased came to his death at the time and place, and in the manner set forth in the foregoing prayer, they must find the accused guilty as indicted, unless they are satisfied by said evidence, beyond a reasonable doubt, that at the time the said homicide was committed, as aforesaid, the accused had not sufficient capacity to distinguish right from wrong in regard to the homicide, or was from disease incapable to resist the commission of the act ; *or was impelled to the act by an insane impulse, pro-*

duced either by diseased physical condition, or by moral causes operating on a diseased state of her system, stinging her to madness, and for the time displacing reason from its seat.

The Court further said :

The plea in this case is simply not guilty, and the Act of Congress does not require the jury to state upon what reasons they are to find their verdict.

What is this but an invitation to the jury to gratify their own "impulses" in a verdict of acquittal? Under such ruling, the legal definitions of insanity, which have been settled with so much labor, are entirely set aside. "Insane impulse," in the sense here given it, is a pure fiction, invented to enable a jury to act unrestrained by the rules of legal and medical science. There need be found no degree of dementia, no delusion, no momentary delirium even. But "diseased physical condition," certain to be found in the history of every case; "moral causes operating," etc.—grief, revenge, for instance; "stinging to madness, and for the time displacing reason from its seat,"—very powerful language, no doubt, but more metaphorical than the law is wont to use; these are the tests of insanity proffered by the Supreme Court of the District of Columbia. Judge Wylie does not, indeed, go so far in his innovations as did his predecessor Judge Crawford, who ruled, in the famous Sickles' case, that the prisoner was entitled to the benefit of a doubt, in the minds of the jury, as to his mental condition. But if a jury may find insane impulse where there is no insanity in either the common or legal sense, we do not see that anything more is needed. Yet, it will be said, insanity, and that in a degree sufficient to relieve from responsibility, was found by the medical and expert witnesses. We are compelled to admit the weight of

this, not only in courtesy, but in justice. Still, it is only the substantial facts given in evidence in this case which can go before the world, and by these it must be judged. If the appearances of insanity observed by Dr. Nichols were incapable of being described in terms, they cannot, of course, be taken into account in an analysis of the testimony as published. Fortunately, it does not often happen to experts to find the human mind so seriously affected by disease as to dethrone the will—usually the last to yield to insanity, as it is in fact only the final expression of all the other faculties—while both the feelings and the understanding are left undisturbed. When this rare condition is found, and neither popular language nor the formulas of medical and legal science are sufficient to describe it, the difficulty is indeed a serious one. Without proposing a remedy for it, however, we must proceed to offer some remarks on the present case.

In the first place, no delusion, in the medico-legal sense of the term, was exhibited by the prisoner at any time in her history. The temporary visual and aural hallucinations which she seems to have had in Chicago, and while in jail, are the natural result of excitement, and not worthy to be mentioned. Indeed, no prominence is given them by any one. Any degree of mental enfeeblement is also disclaimed for her. There remains, then, the plea of “moral insanity,” which we maintain has not, and cannot have any place in the sciences of law or medicine. But admitting, for a moment, that there is such a condition as moral insanity, how can it be predicated of the girl, Mary Harris? It must be said that the greatest inconsistency and seeming ignorance in respect to this supposed form of mental disease, are apparent in the arguments of her counsel. At least some-

thing like the language of science, and a theory consistent with itself, ought to be preserved in such a case; but even these were, for the most part, dispensed with. They do these things infinitely better in New York, as the celebrated case of Huntington may testify. But whether with the design of concealing the weakness of their theory, or from a want of knowledge, the phrases moral insanity, homicidal impulse, insane impulse, uncontrollable excitement, etc., are used indiscriminately, and seemingly as often as possible. Another phrase is that of "periodical or paroxysmal insanity," which is used to denote a single species of disease, instead of two, as it should be understood. Now the moral insanity of Prichard is made up of two monomanias, as recognized by Pinel and Esquirol, the affective and the instinctive. In the former—which is also the *mame raisonnante* of Pinel, and the *folie d'action* of Brierre de Boismont—according to Esquirol, "the understanding is not essentially disturbed, and the patient is always ready to justify his sentiments and conduct." This, the more common of the two forms included under the term moral insanity, is not the insanity of Mary Harris. She lamented the homicidal act from the first, and exhibited the keenest remorse therefor. Was hers, then, a case of instinctive monomania, of the homicidal type? This variety is admitted by those who recognize it, to be exceedingly rare. Most cases of homicidal insanity—we think all—are cases of homicidal mania, not monomania. But supposing, for a moment, that disease may be the source of an impulse so powerful as to destroy free-agency, and yet be manifested in no way but in the homicidal act. Of course, then, there can be no positive, but only probable proof of insanity, and this proof, to

be sufficient—so say the authorities on the subject—must consist of two elements. There must be no natural, intelligible way of accounting for the act except in the supposition of insanity, and some efficient predisposing cause of mental disease, must have existed. Such causes are heredity, previous attacks of insanity, wounds of the head, brain fever, the sudden suppression of a discharge, the puerperal state, and some others. But neither dysmenorrhœa nor disappointed affection are of this class. Where the menstrual function is in fact performed, either with or without pain, we have not the least warrant for looking to it as a cause of mental derangement. Nor is the expert satisfied with attributing an attack of insanity to disappointed affection. The belief that this is a common cause of mental disorder is a mere popular error. Girls who, from hereditary tendency, or the transformation of a neurosis, begin to dement, as they are apt to do, at the time of puberty, are very likely to develop, among the first symptoms of insanity, some fancy for one of the opposite sex; which, meeting no encouragement, soon gives rise, in popular fancy, to a case of disappointment in love. This is a type of the class of those whose minds have been overthrown, as it is said, by all-powerful love, and Mary Harris is as far as possible from being an example of it. Besides, the evidence does not show any deep-rooted, serious attachment between the parties. He was nearly twice as old as she, a foolish, trifling fellow, and quite incompetent to feel or excite anything worthy the name of love. Nothing could be more natural, than that the flattered vanity and excited ambition of Mary Harris should be changed, by his shameful conduct, into deadly hatred and the desire of revenge. That these feelings

should find vent in hysteria, especially at the menstrual crisis, is also what we should expect. Nor can anything be more plain, than that the facts testified to by Dr. Fitch and the Misses Devlin are those of hysteria, and hysteria alone. The former does not testify to a belief in the insanity of his patient, at that time, and says that what is "most like evidence of insanity" in her history, are her contradictory statements to the policeman and to Secretary McCullough, during the moments of distraction immediately following the murder. Of the manifestations sworn to by the Misses Devlin we have already spoken.

There is one point in the testimony of the medical witnesses to which we wish to call attention. It is contained in a paragraph from the cross-examination of Dr. William P. Johnson, quoted on a preceding page. We must dispute the correctness of Dr. Johnson's definition of hysteria. That which he gives as its popular meaning is much more nearly correct. Hysteria is a disorder marked by great nervous excitability, shown in spasm and convulsion, more or less disorder of the feelings, and, in its worst forms, a yielding up of the will at the prompting of selfish and depraved desires. Violence and threats to commit it are manifested by hysterical subjects only when this may be done with a degree of impunity. The usual object is sympathy or notoriety, and firmness on the part of the friend or physician will usually repress these manifestations. They mark the so-called secondary hysteria, and bear the same relation to hysteromania, that drunkenness does to mania *â potu*; though there is less excuse for confounding the former than the latter of these two sets of allied conditions. For, as the learned Dr. Morel observes, "the

ordinary symptoms which are observed in hysteria proper have disappeared in hysterical insanity, which is a transformed neurosis, in the most rigorous sense."

And now that we have, with no little labor, sifted from the mass of testimony taken in this trial all that has any bearing upon the mental condition of the accused, we fear our readers will ask, to what good purpose it has been done. Aside from the opinion of our respected friend, Dr. Nichols—taking into view the facts only, as they appear in evidence—we shall be told that there is no proper ground for grave suspicion, even, of insanity in this case. If we believed in moral insanity—in an insanity whose sole predisposing and proximate cause is wounded feeling; which consists only in a determination to satisfy revenge at all hazards; and which—

"No balm can cure but his heart's blood,
Which breathed this poison,"—

our judgment might, indeed, be different. But it is this moral insanity, which, in this instance—and so it generally proves—has not a single symptom to distinguish it from moral depravity, that we refuse to give a place in the list of mental diseases. If others can afford to reject those rules for tracing human passion to its source in sin or disease, which are the crystallization of all legal wisdom from the beginning, and in accordance with which Cain was found guilty by the great Judge, we have only to say that we cannot. That they afford but a dim light where all can be known only to Omniscience, is what we should expect; but this can not be a reason for deserting them to follow the *ignis fatuus* of moral insanity.

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INFLUENCE OF DISTANCE FROM AND NEARNESS TO AN INSANE HOSPITAL ON ITS USE BY THE PEOPLE.

BY EDWARD JARVIS, M. D.

At the present moment, when the Legislature of New York is proposing to establish another large central hospital for the care of the insane of the whole State, making it necessary for the people of every county, however near or remote, to send their curable patients to one institution, at Utica, and all their incurable patients to another central institution, it is worth while to examine the history of the past and see what has been the effect of this endeavor to concentrate all the lunatics of the State in one place, and how far the blessings of such an institution, its privileges and advantages have been practically given to, and enjoyed by the people in the various parts of the State.

At the same time it will be well to examine the history of similar institutions in other States, and see how far they have accomplished the whole purpose of their creation, in healing or caring for the mental maladies of their people, in all their near and remote districts.

An insane hospital is, and must be, to a certain extent, a local institution. People will avail themselves of its privileges in some proportion to their nearness to it. No liberality of admission, no excellence of its management, no power of reputation can entirely overcome the obstacle of distance, expense, and of the difficulties of transporting lunatics, or the objection of friends

to sending their insane patients far from home, and out of the reach of ready communication.

The operation of this principle, in some degree, seems probable to any one who gives a thought to the matter ; but the facts, the particular history of those institutions, in which the records of the homes of their patients are kept, show that the objection of distance prevails with all of them, and that those hospitals have been and are used by those who live near by, much more than by those who live farther off ; and consequently they are practically much more local in their usefulness than they are intended or are supposed to be.

The State Hospital at Utica was opened in 1843, and offered to the people of every county, both near and remote, the same conditions. The people of Oneida, Schoharie, Orange, Washington and Chautauqua were alike invited to send their insane, on the same terms. Between them there was and could be no difference of advantage, after their patients should be placed in the hospital ; the only difference was in the distances between their homes and the institution, in the labor, cost and burden of travelling to a hospital with a lunatic.

To make this matter more certain and to show the difference of enjoyment to the eye, the whole State has been divided into four Districts, according to their distance from the hospital.

The first District is Oneida county, in which the hospital is situated.

The second District consists of eleven counties : Chenango, Cortland, Fulton, Herkimer, Lewis, Madison, Montgomery, Onondaga, Oswego, Otsego, Schoharie.

These are mostly within 60 miles of Utica.

The third District includes seventeen counties, which are from 60 to 120 miles distant: Albany, Broome, Cayuga, Columbia, Delaware, Greene, Hamilton, Jefferson, Rensselaer, Saratoga, Schenectady, Seneca, Tioga, Tompkins, Warren, Washington, Wayne.

The fourth District includes the most distant counties, which are from 120 to 350 miles from Utica: Allegany, Cattaraugus, Chautauqua, Chemung, Clinton, Dutchess, Erie, Essex, Franklin, Genesee, Livingston, Monroe, Niagara, Ontario, Orange, Orleans, Putnam, Queens, Richmond, Rockland, Schuyler, Steuben, St. Lawrence, Suffolk, Sullivan, Ulster, Westchester, Wyoming, Yates.

These four Districts include all the counties of the State, except New York and Kings, which have each hospitals of their own, and, therefore, little or no occasion or inducement to send patients to Utica.

The population of each of these Districts has been ascertained and calculated for each of the twenty-three years, 1843 to 1865, inclusive, since the hospital was opened. The number of patients sent to the hospital from each District, within that period, has also been ascertained. Taking, then, the sum of the annual populations for twenty-three years, and dividing it by the number of patients sent in that time, shows the proportion of patients which each District has sent out of its whole number of people. These numbers and facts are presented in the following tables :

Annual Population of the Districts of New York.

YEAR.	DISTRICTS.			
	I.	II.	III.	IV.
1843	84,990	411,281	625,224	998,656
1844	84,880	412,350	629,913	1,010,640
1845	84,776	413,445	634,561	1,022,799
1846	87,658	421,217	647,252	1,053,687
1847	90,538	429,135	660,197	1,085,508
1848	93,619	437,202	673,400	1,118,290
1849	96,805	445,421	686,868	1,152,062
1850	99,566	453,768	700,803	1,186,728
1851	100,959	456,490	704,657	1,213,310
1852	102,372	459,228	708,532	1,240,488
1853	103,805	461,983	712,428	1,268,274
1854	105,258	463,754	716,346	1,296,683
1855	107,749	465,291	719,997	1,326,918
1856	107,265	469,013	728,132	1,307,811
1857	106,783	472,765	736,361	1,289,049
1858	106,303	476,547	744,681	1,270,487
1859	105,825	480,349	753,095	1,252,192
1860	105,202	486,212	761,460	1,235,347
1861	104,676	484,994	760,547	1,276,113
1862	104,153	483,783	759,635	1,318,224
1863	103,633	482,574	758,724	1,361,725
1864	103,115	481,368	757,814	1,406,661
1865	102,713	480,236	756,893	1,454,825
Total,	2,292,643	10,528,406	16,337,520	28,146,477

For these twenty-three years, 1843 to 1865, in Oneida county, the sum of the annual populations was 2,292,643 who sent 827 patients, or 1 in 2,772 of this number, to the hospital. In the second District, the sum of the annual populations was 10,528,406, who sent 1,809 patients, or 1 in 5,820 of this number to the hospital. In the third District, the sum of the annual populations was 16,337,520, who sent 2,222 patients, or 1 in 7,351 of their number to the hospital. In the fourth District, the sum of the annual populations was 28,146,477, who sent 2,440 patients, or 1 in 11,535 of their number to the hospital.

Population and Patients of Districts.

	DISTRICTS.			
	I.	II.	III.	IV.
Sum of the Annual Population for 23 years,.....	2,292,643	10,528,406	16,337,520	28,146,477
Patients sent to the Hospital in 23 years,.....	827	1,809	2,222	2,440
Average Annual Population,.....	99,680	457,756	710,327	1,223,760
Average Patients sent to the Hospital,.....	36	78	96	106
Population to one Patient sent to the Hospital in each year,.....	2,772	5,820	7,351	11,535

This shows a great disproportion in the uses made of the hospital by the people of the near and of the remote counties.

Taking a basis 1,000 for the extent of the enjoyment of the hospital by the remotest Districts, the proportionate enjoyment of the Districts will be : IV, 1,000 ; III, 1,568 ; II, 1,981 ; I, 4,196.

The advantages of the hospital enjoyed by Oneida county have been more than double those enjoyed by the counties next beyond, but within 60 miles ; they are nearly threefold those enjoyed by the counties which are from 60 to 120 miles distant ; and more than four times as great as those enjoyed by the people of the counties which are more than 120 miles distant.

It will not be supposed that the insane persons who needed the hospital care or treatment in these Districts were in these proportions. It cannot be supposed that the number of lunatics in Oneida county is twice as great as that in Oswego, Fulton, Schoharie, Herkimer, and the other counties beyond Oneida but within 60 miles ; or four times as great as that in counties 120 and more miles from this District.

The State Censuses of 1855 and 1865 show the number of the insane in the several counties of New York.

Arranging these in the Districts herein described, according to their distance from Utica, they were in proportion to the population.

Population to One Lunatic in New York.

District.	1855.	1865.
I.	1,224	1,300
II.	1,525	1,611
III.	1,457	1,396
IV.	1,788	1,904

This diversity of advantage of an insane hospital enjoyed by the people of near and remote Districts, is not an accident, nor a peculiarity of New York alone. It is a general and probably universal principle—a natural and necessary law of nature or of humanity—for in all other States whose hospital records of patients' residence have been obtained, the same law is found to be in operation, and the people send their patients to these institutions in proportion to their nearness.

In twenty-six States, for various periods of years, insane hospitals have been in operation, whose doors are and have been open alike to all of their people. The Reports of most of these institutions state the number which have been sent to them from each county. From the others, copies of the records of facts have been obtained, showing the number which the various parts of the States have contributed to fill the wards of those institutions. In order to determine the extent and application of the law of distance in the use of hospitals, these other States and two of the British Provinces have been examined and analyzed in the same way as New York.

They have been divided into concentric districts, making the county in which the hospital is situated the first, and the contiguous counties the second district, and the others more distant. The populations of these several districts have been calculated and determined for each of the years in which the hospital has been in operation, or in which the records of the residence of the patients were kept and have been obtained, and the comparison made of the proportion of patients to population of the several districts.

It should be here stated, that in making these concentric circular divisions, it has been impossible to make them perfectly regular, with an exactly equal radius from the common centre or equal distance of the inner and outer boundary from the hospital, for the counties are very diversely and irregularly shaped, some of them, as in Maine, being nearly 150 miles long. While then a district may be stated to be within certain specified distances from the hospital, circles drawn upon these radii would, on both sides, exclude some part of the territory that belongs to it, and include some that belongs to its neighbor. Nevertheless, these irregularities of border, or exceptions to the rule, will not militate with the general plan, nor vitiate any calculations made upon, or deductions made from, this analysis of the States and hospital receptions.

Twenty-two States and two British Provinces furnish the conditions requisite for the purpose of this report, and are included in the calculations and statements: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, Maryland, Virginia, North Carolina, Michigan, Ohio, Indiana,

Illinois, Missouri, Kentucky, Tennessee, Mississippi, Louisiana, Canada, Nova Scotia.

MAINE.

The hospital is established by and under the control of the State, and open alike to the people of all its parts. It has been in operation from 1840, and has a record of twenty-six years. The hospital is at Augusta, in the county of Kennebec.

The first District consists of Kennebec county.

The second District includes eight counties contiguous to Kennebec: Androscoggin, Franklin, Knox, Lincoln, Oxford, Sagadahoc, Somerset, Waldo.

The third District includes three counties: Cumberland, Hancock, York.

The fourth District consists of four counties: Aroostook, Penobscot, Piscataquis, Washington.

In the first District, Kennebec county, the sum of the annual populations for twenty-six years was 1,519,860; these sent 536 patients to the hospital; equal to one in 2,835 of the living in each year.

In the second District, the sum of the populations was 5,869,616, or an annual average of 225,754. This District sent 1,135, or an annual average of 43.3, equal to one in 5,171 of the living in each year.

In the third District, the sum of populations was 4,414,348, an annual average of 169,782. These sent 784 patients in twenty-six years, an average of 30.1, or one in 5,630 in each year.

In the fourth District, the sum of the populations was 3,448,294, or an annual average of 133,396. They sent 437 patients, an average of 15.8, or one in 7,890 of the people.

NEW HAMPSHIRE.

The hospital was established in 1842, and has been in operation twenty-three years. It is in Merrimac county, which is the first District.

The second District includes the contiguous counties : Belknap, Grafton, Hillsborough, Rockingham, Sullivan.

The third District includes the most remote counties : Carroll, Cheshire, Coos, Stafford.

In the first District, the sum of the annual populations, for twenty-three years, is 966,310, an average of 42,013. These sent 396 patients to the hospital, a yearly average of 17.2, or one in 2,440 of the people.

In the second District the sum of populations was 4,406,569, an annual average of 191,589. These sent 1,270 patients, averaging 55.2, or one in 3,469 of the living, in each year.

In the third District, the sum of the annual populations was 2,229,424, averaging 96,931 yearly. These sent 355 patients to the hospital, or 15.4, one in 6,280, in each year.

MASSACHUSETTS.

The Worcester Hospital in Massachusetts was opened in 1833, and was the only State institution of its class until 1854, when the Taunton Hospital was opened. During this period it was open to all the people of the State, and received patients from all the counties. In the classification Suffolk county is omitted, because it had a hospital of its own for paupers from 1838, and the McLean Asylum received most of its private patients.

In the first District, including Worcester county, the sum of populations through twenty-one years was 2,378,573, or an annual average of 123,122. These

sent 1,067 patients to the hospital, averaging 50.6, or one in 2,229 in each year.

In the second District of contiguous counties, including Franklin, Hampden, Hampshire, Middlesex, Norfolk, the sum of the annual populations was 6,133,637, an average of 292,078 in each year. These sent 3,872 patients to the hospital, or 185.3 yearly, which is equal to one in 3,872 of the living, in each year.

In the third District of the remote counties of Barnstable, Berkshire, Bristol, Dukes, Essex, Nantucket, Plymouth, the sum of populations, through twenty-one years, was 6,602,777, a yearly average of 314,418. From these, 1,333 patients went to the hospital; being 63.5, or one in 4,953 yearly.

THE EXPERIENCE OF MCLEAN ASYLUM SIMILAR TO THAT OF
WORCESTER.

The McLean Asylum has been nearly fifty years in operation, at Somerville, within three miles of five cities, Boston, Chelsea, Charlestown, Cambridge and Roxbury. Although a corporate institution, it is open to all the people of Massachusetts on equal terms; all are invited to send their patients. Of the 154 patients in the house February 19, 1866, from Massachusetts, 80 were from the five cities above mentioned, 30 from other parts of Middlesex county, 24 from Essex county, 8 from Norfolk, 16 from Plymouth, 3 from Barnstable, 2 from Bristol, and 1 from Worcester county.

Residence of Patients in McLean Asylum.

County or City.	Distance.	Population.	Patients.	Population to One Patient.
Five Cities,	0- 3	290,665	80	3,633
Middlesex,	0-35	165,106	30	5,503
Essex,	2-35	165,611	24	6,900
Norfolk,	3-30	81,524	8	10,190
Plymouth,	15-45	63,074	6	10,384
Bristol,	20-60	89,505	2	
Barnstable,	45-90	35,489	3	
Worcester,	25-65		1	

RHODE ISLAND.

The Butler Hospital has been opened sixteen years—1849 to 1865—and equally open to all the people of the State.

In the first District, Providence county, the sum of annual populations was 1,704,913, an average of 106,557 in each year. From these 551 patients went to the hospital, equal to 34.4, or one in 3,094 of the living, yearly.

In the second District, embracing the rest of the State, the sum of populations was 1,076,997, or 67,312 in each year. These sent 204 patients, or 12.7 yearly, being one in 5,279 of the people.

NEW JERSEY.

The Hospital is a State institution, situated at Trenton, in Mercer county, and has been in operation from 1848 to 1865, eighteen years. It is open to all the people of every county on the same conditions.

The first District is Mercer county.

The second District includes eight counties, from 12 to 35 miles from Trenton; Burlington, Essex, Hunterdon, Middlesex, Monmouth, Ocean, Somerset, Union.

The third District includes twelve counties, which are from 35 to 75 miles distant from the hospital: Atlantic,

Bergen, Camden, Cape May, Cumberland, Gloucester, Hudson, Morris, Passaic, Salem, Sussex, Warren.

In the first District the sum of populations for eighteen years was 615,070, or an average of 34,170. From these 273 patients were sent to the hospital, which is 15.1, or one in 2,253 of the people in each year.

In the second District the sum of populations was 5,204,296, or an annual average of 289,128. From these 1,401 patients went to the hospital, which is an average of 77.8, or one in 3,714 of the living in each year.

In the third District the sum of the populations was 5,255,946, an annual average of 291,997. In the eighteen years, 890 patients went from this District to the hospital, which is 49.4, or one in 5,905 of the people in each year.

PENNSYLVANIA.

For many years the Hospital for the Insane at Philadelphia, and the Friends Asylum at Frankford, six miles from that city, both corporate institutions, and the City Pauper Hospital, had been in operation. Most of the patients belonging to Philadelphia county were and are sent to these institutions, and comparatively few have been sent to the State Hospital at Harrisburgh. Therefore the county of Philadelphia is omitted in these statements in respect to Pennsylvania.

The State Lunatic Hospital was opened October 6, 1851, and was the only State institution for the insane until 1857, when the hospital at Pittsburgh was opened to the insane in the western part of the State.

The calculations for the Harrisburgh Hospital are made for the whole State for this period, 1851, to 1857,

and for the middle and eastern parts of the State for the subsequent period.

Harrisburgh is on the border of Dauphin county, and is as near to Cumberland, the contiguous county. Therefore both of these counties are included in the first district.

The second District includes ten counties within 55 miles : Adams, Franklin, Juniata, Lancaster, Lebanon, Northumberland, Perry, Schuylkill, Snyder, York.

The third District, includes the twenty-two counties next beyond the second District, 55 to 110 miles distant from Harrisburgh : Bedford, Berks, Blair, Cambria, Carbon, Centre, Chester, Clearfield, Clinton, Columbia, Delaware, Fulton, Huntington, Lehigh, Luzerne, Lycoming, Mifflin, Montgomery, Montour, Northampton, Sullivan, Union.

The fourth District includes twenty-nine counties, 110 to 250 miles distant : Armstrong, Beaver, Bradford, Bucks, Butler, Clarion, Crawford, Elk, Erie, Fayette, Forest, Greene, Indiana, Jefferson, Lawrence, MacKean, Mercer, Monroe, Pike, Potter, Somerset, Susquehanna, Tioga, Venango, Warren, Washington, Wayne, Westmoreland, Wyoming.

During the period when the hospital at Harrisburgh was the only State institution for the insane, the sum of the annual populations of the several Districts and of the patients sent, and also the annual averages of these were as follows :

In the first District, the sum of the populations was 418,256, a yearly average of 76,046. Their total of patients sent to the hospital was 69, being 12.5 patients and one in 6,061 of the people in each year.

In the second District the sum of populations was 2,190,973, or an yearly average of 398,358, who sent 203 patients to the hospital, equal to 36.9 each year, or one in 10,793 of the living.

In the third District the sum of the populations was 3,678,752, and number of patients 208, which was an annual average of 668,864 people and 37.9 patients, or one in 17,686 of the living.

In the fourth District the sum of people was 4,227,184, and patients 178, an annual average of 768,578 people and 32.3 patients, or one in 23,748 of the living.

From 1857 to the present date, the Harrisburgh Hospital and the Western Hospital have divided the State; certain counties being assigned, by law, to the eastern and certain others to the western institution.

For this period, 1857 to 1865, the eastern and central portions of the State are divided into four districts in reference to the Harrisburgh Hospital, and the western part into three, with reference to Pittsburgh as a centre.

In the eastern and central parts of the State :

In the first District, during these years, the sum of populations was 800,260, and the annual average 88,917. In the whole period 136 patients went to the hospital, which was equal to 15.1, or one in 5,884 people in each year.

In the second District the sum of annual populations was 4,240,788, an average of 471,198 yearly. These sent 404 patients, which is equal to 45, or one in 10,497 people each year.

In the third District the sum of populations was 6,808,921, an average of 756,546 in each year. They

sent 391 patients to the hospital in the whole period, which was equal to 43.4, or one in 17,414 people yearly.

In the fourth District the sum of annual populations was 7,669,080, who sent 143 patients to the hospital. The annual average of population was 852,120, and of patients 15.8, or one in 53,629.

WESTERN PENNSYLVANIA.

Allegheny county was the first District.

The second District includes five contiguous counties within 50 miles of Pittsburgh: Armstrong, Beaver, Butler, Washington, Westmoreland.

The third District includes fourteen counties, 50 to 125 miles of Pittsburgh: Cambria, Clarion, Crawford, Elk, Erie, Fayette, Greene, Jefferson, Lawrence, McKean, Mercer, Somerset, Venango, Warren.

In the first District, the sum of populations was 1,613,403, and the annual average 179,267. From these 442 patients were sent, averaging 49.1, or one in 3,650 people yearly.

In the second District, the sum of annual populations was 1,809,991, and the yearly average 201,110. These sent 171 patients, which was equal to 19, or one in 10,584 people in each year.

In the third District, the sum of annual populations was 3,737,948, or an annual average of 415,327. From these 167 patients went to the hospital, which was equal to 18.5, or one in 22,382.

MICHIGAN.

The Asylum for the Insane was established by the State, at Kalamazoo, Kalamazoo county, and commenced operations in August, 1859, and its privileges were

offered to all the people of the State—the near and the remote—to all on the same terms.

The first District is Kalamazoo county.

The second District includes seven contiguous counties, within 35 miles of the asylum: Allegan, Barry, Branch, Calhoun, Cass, St. Joseph, Van Buren.

The third District includes twenty counties, from 35 to 100 miles distant: Berrien, Clinton, Eaton, Gratiot, Hillsdale, Ingham, Ionia, Isabella, Jackson, Kent, Lenawee, Livingston, Mecosta, Montcalm, Muskegon, Newaygo, Oceana, Ottawa, Shiawassee, Washtenaw.

The fourth District includes nineteen counties, from 100 to 150 miles distant from Kalamazoo: Bay, Clare, Genesee, Gladwin, Lake, Lapeer, Macomb, Manistee, Mason, Midland, Missaukee, Monroe, Oakland, Osceola, Roscommon, Saginaw, St. Clair, Tuscola, Wexford.

The fifth District includes twenty-three counties, from 150 to 350 miles distant from Kalamazoo: Alcona, Alpena, Antrim, Cheboygan, Chippewa, Crawford, Delta, Emmet, Grand Traverse, Houghton, Huron, Iosco, Kalkasca, Leelenau, Manitou, Marquette, Michilimackinac, Ogemaw, Ontonagon, Otsego, Presque Isle, Sanilac, Schoolcraft.

During the five and one-half years, of which the record is printed, the asylum received 386 patients. The annual populations of the several districts, and the patients received from them were as follows:

The sum of populations in the first District was 151,794, and the patients sent to the asylum 48, making an annual average of 27,599 people and 8.7 patients, or one in 3,762 of the living.

The population of the second District through these years amounted to 830,623, and the patients sent from

these to 90. These show an annual average of 151,022 inhabitants and 16.3 patients, or one in 9,229 of the people.

In the third District the sum of populations was 1,885,265, and the number of patients sent from these 170. The averages of these were 342,775 people and 30.9 patients, or one in 11,089 of the living.

In the fourth District the annual populations amounted to 1,037,211, who sent 73 patients to the asylum. The annual averages were 188,583 people and 13.2 patients, or one in 14,208 persons.

In the fifth District, the populations were 292,195, and from these 5 patients were sent to the asylum. During the period under observation, the average population was 53,126, and the yearly average of patients less than one, being one in 58,439 people.

OHIO.

The State Lunatic Asylum began its operations at Columbus, in Franklin county, November 30, 1839. It was the only institution in the State for the insane, except a local hospital at Cincinnati, until 1855, when the Northern Asylum was opened at Newburgh, for the northern and north-eastern counties, and the Southern Asylum at Dayton, for the western and south-western counties. From November, 1839, to 1855, the Columbus Asylum received patients from all the counties, its privileges being equally offered to all.*

The first District includes Franklin county.

* In this classification, Hamilton county having a hospital, is omitted.

The second District includes six contiguous counties, within 40 miles of Columbus: Delaware, Fairfield, Licking, Madison, Pickaway, Union.

The third District includes twenty-six counties next beyond those before mentioned, and from 40 to 75 miles from Columbus: Athens, Champaign, Clark, Clinton, Crawford, Fayette, Greene, Guernsey, Hardin, Highland, Hocking, Jackson, Knox, Logan, Marion, Miami, Montgomery, Morrow, Muskingum, Perry, Pike, Richland, Ross, Shelby, Vinton, Wyandot.

The fourth District includes fifty-four counties, from 75 to 150 miles from the asylum: Adams, Allen, Ashland, Ashtabula, Auglaize, Belmont, Brown, Butler, Carroll, Clermont, Columbiana, Coshocton, Cuyahoga, Darke, Defiance, Erie, Fulton, Gallia, Geauga, Hancock, Harrison, Henry, Holmes, Huron, Jefferson, Lake, Lawrence, Lorain, Lucas, Mahoning, Medina, Meigs, Mercer, Monroe, Morgan, Noble, Ottawa, Paulding, Portage, Preble, Putnam, Sandusky, Scioto, Seneca, Stark, Summit, Trumbull, Tuscarawas, Van Wirt, Warren, Washington, Wayne, Williams, Wood.

During these sixteen years the sum and averages of annual populations in, and of patients sent to the Central Asylum were as follows:

In the first District the sum of populations was 1,145,181, an annual average of 39,489. The number of patients sent was 225, which was 7.7, or one in 5,060 people in each year.

In the second District the sum of populations was 3,805,589, or an annual average of 131,227. These sent 521 patients, or 17.9 in each year, equal to one in 7,304 people.

In the third District the sum of people was 15,003,348, averaging 517,356 in each year. From these 1,281 patients went to the asylum, or 9.6 in each year, being one in 11,712 inhabitants.

In the fourth District the sum of the annual populations was 31,154,619, equal to an average of 1,074,297 in each year. The number of patients who went to the asylum was 1,079, equal to 37.2, or one in 28,873 people yearly.

ILLINOIS.

The State Asylum was opened in Jacksonville, Morgan county, in 1847. The printed reports state the residence of the patients to 1864, eighteen years.

The first District is Morgan county.

The second District includes eight counties, within 40 miles: Brown, Cass, Greene, Macoupin, Menard, Pike, Sangamon, Scott.

The third District includes fifteen counties, 40 to 75 miles distant: Adams, Bond, Calhoun, Christian, Fulton, Hancock, Jersey, Logan, Macon, Madison, Mason, McDonough, Montgomery, Schuyler, Tazewell.

The fourth District includes forty-two counties, 75 to 125 miles from the asylum: Bureau, Champaign, Clay, Clinton, Coles, Cumberland, De Kalb, De Witt, Douglas, Effingham, Fayette, Ford, Henderson, Henry, Jasper, Jefferson, Kendall, Knox, La Salle, Lee, Livingston, MacLean, Marion, Marshall, Mercer, Monroe, Moultrie, Peoria, Perry, Piatt, Putnam, Randolph, Richland, Rock Island, St. Clair, Shelby, Stark, Vermillion, Warren, Washington, Wayne, Woodford.

The fifth District includes thirty-five counties, from 125 to 225 miles distant: Alexander, Boone, Carroll,

Clark, Crawford, Du Page, Edwards, Edgar, Franklin, Gallatin, Grundy, Hamilton, Hardin, Iroquois, Jackson, Joe Daviess, Johnson, Kane, Kankakee, Lake, Lawrence, McHenry, Massac, Ogle, Pope, Pulaski, Saline, Stephenson, Union, Wabash, White, Whitesides, Will, Williamson, Winnebago.

In the first District the sum of annual populations was 337,242, or an average of 18,747, who sent 102 patients, or 5.6 yearly; equal to one in 3,306 of the people.

In the second District the sum of annual populations was 2,052,957, an average of 114,053 in each year. From these 261 went to the asylum, which is 14.5, or one in 7,865 yearly.

In the third District the sum of populations was 3,941,236, a yearly average of 218,957, who sent 423 lunatics to the asylum, equal to 23.5, or one in 9,317 in each year.

In the fourth District the sum of populations was 8,462,974, or 470,137 in each year. From among these 720 patients were sent to the asylum, which was equal to 40, or one in 11,753 annually.

The fifth District had, during the period of the operation of the asylum, a total annual population of 6,655,211, or an average of 391,483. From these 427 patients went to the asylum, which is equal to 25.1, or one in 15,585 people in each year.

MARYLAND.

The Maryland Hospital for the Insane has been established in Baltimore. It is a corporate institution, but is open equally to the patients of all parts of the State.

The records of the residence of the patients from 1850 to 1864, inclusive, have been obtained, and on this

period of fifteen years, the following calculations and statements are made :

Baltimore city constitutes the first District.

The second District includes thirteen counties, within 50 miles of Baltimore: Anne Arundel, Baltimore, (country part,) Calvert, Carroll, Cecil, Frederic, Harford, Howard, Kent, Montgomery, Prince George, Queen Ann, Talbot.

The third District includes the eight most remote counties, from 50 to 150 miles distant from the hospital: Allegany, Charles, Caroline, Dorchester, St. Mary's, Somerset, Washington, Worcester.

In the first District the sum of the annual population for fifteen years was 2,989,753, an average of 199,250 for each year. These sent 422 patients to the hospital, being 18.1, or one in 7,034 yearly.

In the second District the sum of populations was 4,383,107, or 292,270 yearly. From these 433 patients went to the hospital, being 28.8, or one in 10,122 of the people in each year.

In the third District the sum of populations was 2,461,482, averaging 164,098 a year. These sent 107 patients to the hospital, which was equal to 7.1, or one in 23,009 of the living annually.

VIRGINIA.

No record is found of the residence of the patients sent to the Eastern Asylum at Williamsburgh.

The patients sent to the Western Asylum at Staunton, Augusta county, are from the western counties, which only are included in the districts. This institution went into operation in 1828, and the people of all the western counties were invited to send their lunatic

friends to it. The residence of all patients sent from 1828 to 1859, inclusive, thirty-two years, is recorded in the reports that have been published and obtained.

The first District includes only Augusta county.

The second District includes the nine contiguous counties of Albemarle, Amherst, Bath, Greene, Highland, Nelson, Pendleton, Rockbridge, Rockingham, which are 25 to 45 miles from Staunton.

The third District contains the twenty-nine counties which are in the circle 45 to 90 miles from Staunton: Alleghany, Appomattox, Barbour, Bedford, Botetourt, Buckingham, Campbell, Charlotte, Clark, Craig, Culpepper, Cumberland, Fauquier, Fluvanna, Greenbrier, Hardy, Louisa, Madison, Orange, Page, Pocahontas, Prince Edward, Randolph, Rappahannock, Roanoke, Shenandoah, Upshur, Warren, Webster.

The fourth District includes the thirty-five counties that are from 90 to 135 miles from Staunton: Berkley, Braxton, Calhoun, Clay, Doddridge, Fairfax, Fayette, Floyd, Franklin, Frederic, Giles, Gilmer, Halifax, Hampshire, Harrison, Henry, Jefferson, Lewis, Loudon, Marion, Mercer, Monongalia, Monroe, Montgomery, Morgan, Nicholas, Patrick, Pittsylvania, Preston, Prince William, Pulaski, Raleigh, Ritchie, Roane, Taylor.

The fifth and last District includes all the counties from 135 to 330 miles westward, and as far eastward as the middle line between Staunton and Williamsburgh: Bland, Boone, Brooke, Cabell, Carroll, Grayson, Hancock, Jackson, Kanawha, Lee, Logan, Marshall, Mason, McDowell, Ohio, Pleasants, Putnam, Russell, Scott, Smith, Tazewell, Tyler, Washington, Wayne, Wetzel, Wirt, Wise, Wood, Wyoming, Wythe.

In the course of the thirty-two years, 1828 to 1859, the sum of annual populations of the first District was 695,061, or an average of 21,720 in each year. From these 127 lunatics were sent to the asylum, equal to nearly 6, or one in 5,472 of the people yearly.

The sum of populations of the second District was 3,103,376, or 96,980 in each year. These sent 252 patients; equal to an annual average of nearly 8, or one in 12,314 of the living.

The third District had, in the thirty-two years, a sum of annual populations equal to 8,596,820, or 268,650 in each year. These supplied 399 patients to the asylum, which was equal to an annual average of 12.5, or one in 21,570 of the people.

In the fourth District there were, in the course of this period, 9,162,704 people living, or an annual average of 286,334. From these 218 patients went to the asylum, which was equal to 6.8, or one in 24,433 of the people yearly.

In the fifth District the sum of annual populations was 5,472,933, an average of 171,029 yearly. This District sent 218 patients, or an average of 6.8 in each year to the asylum, equal to one in 25,105 of the whole people.

NORTH CAROLINA.

The State Asylum was opened at Raleigh, Wake county, in 1856, and offered to the people of every part of the State on equal terms. The residences of the patients are stated in the annual reports, which, from the beginning to 1860, are available for the purposes of this article.

The first District is Wake county.

The second District includes the eight contiguous counties, which are within 50 miles of Raleigh: Chat-ham, Franklin, Granville, Hamett, Johnson, Moore, Nash, Orange.

The third District includes the thirty-three counties next beyond the last. These are from 50 to 100 miles from the asylum: Alamance, Ansan, Bladen, Cabanas, Caswell, Cumberland, Davidson, Davie, Duplin, Edgecombe, Forsythe, Greene, Guildford, Halifax, Jones, Lenoir, Martin, Montgomery, New Hanover, Northampton, Person, Pitt, Randolph, Richmond, Robeson, Rockingham, Rowan, Sampson, Stanly, Stokes, Warren, Wayne, Wilson.

The fourth District includes twenty-six counties, from 100 to 150 miles from Raleigh: Alexander, Beaufort, Bertie, Brunswick, Carteret, Catawba, Chowan, Columbus, Craven, Gaston, Gates, Hertford, Hyde, Iredell, Lincoln, Mecklenburgh, Onslow, Pasquotank, Perquimans, Piatt, Surrey, Tyrrell, Union, Washington, Wilkes, Yadkin.

The fifth District includes the eighteen counties which are 150 to 250 miles from Raleigh: Ashe, Buncombe, Burke, Caldwell, Camden, Cherokee, Cleveland, Currituck, Haywood, Henderson, Jackson, Macon, Madison, McDowell, Polk, Rutherford, Wetauga, Yancey.

In the first District, Wake county, the sum of annual populations for the five years was 112,129, an annual average of 22,426. These sent 23 patients to the asylum, or 4.6 in each year, which is equal to one in 4,875 of the people yearly.

In the second District, 469,606, the total of annual populations or average of 93,923, sent 73 patients to the

asylum in the five years, averaging 14.6, or one in 6,433 of the whole population in each year.

The sum of annual numbers of the people in the third District was 1,708,271, or an average of 341,654 in each year. From among these 176 lunatics were sent to the asylum, which was 35.2, or one in 9,707 of the living in each year.

In the fourth District the total of annual populations was 999,407, averaging 199,881 yearly; 91 lunatics in the five years gave a yearly average of 18.1, or one in 10,982.

In the fifth District the sum of the annual populations was 549,350, or an average of 109,870, who sent 12 patients, or an average of 2.4, which was one in 45,779 in each year.

MISSISSIPPI.

The State Insane Asylum was opened at Jackson, Hinds county, in 1855. The records of the residences of patients for only one year, 1858, are at command.

Hinds county constitutes the first District.

The second District includes the ten counties within 50 miles of the Asylum: Claiborne, Copiah, Leake, Madison, Rankin, Scott, Simpson, Smith, Warren, Yazoo.

The third District includes the thirteen counties 50 to 75 miles of Jackson: Attala, Covington, Franklin, Holmes, Issaquena, Jasper, Jefferson, Jones, Lawrence, Neshoba, Newton, Washington, Winston.

The fourth District comprises the twenty counties 75 to 125 miles distant: Adams, Amite, Boliver, Carroll, Chickasaw, Choctaw, Clark, Greene, Kemper, Lauderdale, Marion, Noxubee, Oktibbeha, Perry, Pike, Sunflower, Tallahatchie, Wayne, Wilkinson, Yallabusha.

The fifth District includes, the rest of the State, sixteen counties, 125 to 225 miles distant: Calhoun, Coahoma, De Soto, Hancock, Harrison, Itawamba, Jackson, Lafayette, Lowndes, Marshall, Monroe, Panola, Pontotoc, Tippah, Tishamingo, Tunica.

The first District had 30,036 inhabitants in the year recorded, and sent 2 patients, or one in 15,018.*

The second District had 133,500 people, who sent 19 patients, or one in 7,026.

The third District had 125,018 population, who sent 9 patients to the asylum, or one in 13,890.

The fourth District had 226,123 inhabitants, from whom 14 lunatics went, or one in 16,151.

The fifth District had 276,599, who sent 13 patients, or one in 21,276.

LOUISIANA.

The State Asylum was opened in 1848, in Jackson, Parish of East Feliciana. The record of ten years—November, 1848, to 1858—is available for this report.

East Feliciana constitutes the first District.

The second District embraces nine contiguous parishes or counties within 50 miles of the hospital: Ascension, Avoyelles, East Baton Rouge, Iberville, Livingston, Point Coupeé, St. Helena, West Baton Rouge, West Feliciana.

The third District includes fifteen counties, 50 to 100 miles distant: Assumption, Catahoola, Concordia, Jefferson, Lafayette, Madison, Orleans, St. Charles, St. James, St. John Baptist, St. Landry's, St. Martin's, St. Mary's, St. Tammany, Tensas.

* This is the record of a single year only, and is not an exact indication of the permanent habits of the people.

The fourth District includes fifteen counties, 100 to 150 miles distant : Calcasien, Caldwell, Carroll, Franklin, Jackson, Lafourche, Morehouse, Nachitoches, Plaquemines, Rapides, St. Bernard, Terre Bonne, Vermillion, Washite, Winn.

The fifth District embraces seven counties, 150 to 200 miles from Jackson : Bienville, Bossier, Caddo, Claiborne, De Soto, Sabine, Union.

In the first District the average annual populations was 13,971, who sent 21 patients, or 2.1 per year, or one in 6,653.

The second District had an average annual population of 89,889, who sent 59 lunatics to the asylum, or 5.9 in one year, which was one in 15,235 of the people.

The third District had 164,788 inhabitants, from whom 99 patients went to the asylum. This gave 9.9, or one in 16,645 in each year.

In the fourth District the average annual population was 124,115, from whom 58 patients were sent in the ten years to the asylum ; this was 5.8, or one in 21,399 in each year.

In the fifth District the average number of the people was 59,060, who sent 19 patients, or 1.9 yearly to the asylum. This was one in 25,822.*

TENNESSEE.

The Hospital for the Insane was opened at Nashville, Davidson county, and the people of every county invited to send their patients on equal terms. The records

* NOTE.—In the reports, a very large and undue proportion of patients are stated to have been sent from the parishes of Orleans and Caddo. These are so large as to create a doubt whether some others besides those, belonging to other places, are not included. These are, therefore, omitted in this classification and statement.

of the residence of the patients from 1852 to 1859 are printed in the reports. The State is divided for the purpose of this report into five districts.

The first District is Davidson county:

The second District includes the six contiguous counties, which are within 35 miles of Nashville : Cheat-ham, Robertson, Rutherford, Sumner, Williamson, Wilson.

The third District includes nineteen counties, which are from 35 to 70 miles distant : Bedford, Cannon, Coffee, De Kalb, Dickson, Hickman, Humphreys, Jackson, Lewis, Macon, Marshall, Maury, Montgomery, Perry, Putnam, Smith, Stewart, Warren, White.

The fourth District includes thirty-nine counties, 70 to 150 miles from Nashville : Anderson, Benton, Bledsoe, Bradley, Campbell, Carroll, Cumberland, Decatur, Dyer, Fentress, Franklin, Gibson, Giles, Grundy, Hamilton, Hardeman, Hardin, Haywood, Henderson, Henry, Lawrence, Lincoln, McMinn, McNairy, Madison, Marion, Meigs, Monroe, Morgan, Obion, Overton, Polk, Rhea, Roane, Scott, Sequatchie, Van Buren, Wayne, Weakley.

The fifth District comprises nineteen counties, from 150 to 300 miles distant from the hospital : Blount, Carter, Claiborne, Cocke, Fayette, Grainger, Green, Hancock, Hawkins, Jefferson, Johnson, Knox, Lauderdale, Sevier, Sullivan, Tipton, Union, Washington.

In the seven and one-half recorded and published years, the first District had a total sum of annual populations 325,640, who sent 83 patients. The annual averages were 43,418 people and 11 patients, or one in 3,923 of the living.

In the second District the total of the populations for the seven and one-half years was 931,655, who sent

112 lunatics to the hospital. The annual averages were 124,220 people and 14.9 patients, or one in 8,318 of the living, at home.

In the third District the populations were 1,724,574, and the patients 131 during the recorded years. These averaged yearly 229,943 inhabitants and 17.4 lunatics sent to the hospital, or one in 13,164 people.

In the fourth District the sum of the enumerated and calculated populations was 3,147,817, from whom 154 patients went to the hospital. The annual averages of these were 419,708 people and 20.5 lunatics, or one from every 20,440 inhabitants of the district.

In the fifth District the sum of the annual populations through seven and one-half recorded years was 1,582,606, from whom 100 patients went to the hospital. The yearly averages of these were 211,014 people and 13.3 lunatics, or one in 15,826* of the living.

KENTUCKY.

In Kentucky, the asylum at Lexington, Fayette county, was the only institution for the insane in the State, and offered its advantages to the people of every county from 1824 to 1855, when the Western Asylum was opened, and took patients from the western counties until it was burned down in 1860. From that time the Lexington Asylum has received patients from all parts of the commonwealth.

These calculations are based on the experience of the Lexington Asylum from 1824 to 1855, inclusive, except

* Knox county is reported to have sent about three times as many patients as other counties in the same neighborhood in proportion to its population. There may have been an error in the record.

the years 1844, '45, '46 and '47, of which the record has not been obtained.

Fayette county is the first District.

The second District includes the six contiguous counties, within 30 miles of Lexington: Bourbon, Clark, Jessamine, Madison, Scott, Woodford.

The third District includes forty-three counties, 30 to 75 miles from Lexington: Anderson, Bath, Boone, Boyle, Bracken, Bullitt, Campbell, Carroll, Casey, Estill, Fleming, Franklin, Gallatin, Garrard, Grant, Greene, Harrison, Henry, Jackson, Kenton, Lewis, Lincoln, Marion, Mason, Mercer, Montgomery, Morgan, Nelson, Nicholas, Oldham, Owen, Owsley, Pendleton, Powell, Rock Castle, Rowan, Shelby, Spencer, Taylor, Trimble, Washington, Wolfe.

The fourth District includes thirty-nine counties, 75 to 130 miles from the asylum: Adair, Allen, Barren, Boyd, Breathitt, Breckenridge, Butler, Carter, Clay, Clinton, Cumberland, Daviess, Edmondson, Floyd, Grayson, Greenup, Hancock, Hardin, Harlan, Hart, Johnson, Knox, La Rue, Laurel, Lawrence, Letcher, Logan, Meade, Metcalf, Monroe, Ohio, Perry, Pike, Pulaski, Russell, Simpson, Warren, Wayne, Whitley.

The fifth District comprises the twenty-one counties which are from 130 to 300 miles from Lexington: Ballard, Caldwell, Callaway, Christian, Crittenden, Fulton, Graves, Henderson, Hickman, Hopkins, Livingston, Lyon, MacCracken, MacLean, Magoffin, Marshall, Muhlenburgh, Todd, Trigg, Union, Webster.

In the first District the sum of populations was 574,655, averaging 21,283. These sent 180 patients, or an annual average of 6.6, or one in 3,198 of the people.

In the second District the sum of annual populations was 2,134,144, or an average of 79,042, who sent 200 patients, equal to 7.4, or one in 10,670 of the people yearly.

In the third District the sum of annual numbers of the people was 7,908,111, or 292,892 in each year. These sent 610 patients, equal to 22.5, or one in 12,964 of the people yearly.

In the fourth District the sum of populations was 6,250,198, or 231,488 in each year. From these 259 patients went to the asylum, which was equal to 9.5, or one in 24,132 of the annual number living.

In the fifth District the total population of the twenty-eight years amounted to 3,058,111, or 113,263 yearly. From among these 110 lunatics were sent to the asylum, which was an annual average of nearly 4, or one in 27,801 people.

MISSOURI.

In Missouri the Asylum at Fulton, Callaway county, was opened in 1851. It was suspended during the years 1861, 1862 and 1863, and again reöpened. The record of the residence of the patients received during these eleven years is printed, and forms the basis of the calculations.

The first District consists of Callaway county.

The second District includes the six contiguous counties, within 50 miles: Audrain, Boone, Cole, Gasconade, Montgomery, Osage.

The third District includes twenty-one counties, from 50 to 75 miles from Fulton: Cooper, Crawford, Franklin, Howard, Lincoln, Macon, Maries, Marion, Miller, Moniteau, Morgan, Pettis, Phelps, Pike, Pulaski, Ralls, Randolph, Saline, Shelby, St. Charles, Warren.

The fourth District includes twenty-six counties, from 75 to 125 miles from Fulton: Adair, Benton, Camden, Carroll, Chariton, Clark, Dallas, Dent, Henry, Hickory, Iron, Jefferson, Johnson, Knox, Laclede, Lafayette, Lewis, Linn, Livingston, Monroe, St. Francis, Ste. Genevieve, Scotland, Texas, Washington, Wright.

The fifth District includes fifty-eight counties, from 125 to 225 miles distant from the asylum: Andrew, Atchison, Barry, Barton, Bates, Bollinger, Buchanan, Butler, Caldwell, Cape Girardeau, Carter, Cass, Cedar, Christian, Clay, Clinton, Dade, Daviess, De Kalb, Douglas, Dunklin, Gentry, Greene, Grundy, Harrison, Holt, Howell, Jackson, Jasper, Lawrence, McDonald, Madison, Mercer, Mississippi, New Madrid, Newton, Nodaway, Oregon, Ozark, Pemiscot, Perry, Platte, Polk, Putnam, Ray, Reynolds, Ripley, St. Clair, Schuyler, Scott, Shannon, Stoddard, Stone, Sullivan, Taney, Vernon, Wayne, Webster.

In the first District the sum of the populations through eleven years was 147,751, who sent 25 patients. The annual average was, of population 13,432, and of patients 2.3, or one in 5,910 people.

In the second District the total sum of populations was 590,009. These sent 47 patients. The annual averages were, of population 53,637, and of patients 4.3, or one in 12,553 of the people.

In the third District the sum of the annual populations was 2,168,390, who sent 155 patients to the asylum. The averages of each year were, of population 197,126, and of patients 14.1, or one in 13,989 of the living at home.

In the fourth District the sum of the populations of all the eleven years was 1,934,221, from whom 121

patients went to the asylum. The averages of the several years were, of population 175,838, and of patients 11, or one in 15,983.

In the fifth District the sum of population of the several years was 3,905,390. From these 147 patients were sent to the hospital. The annual averages were, of population 355,035, and of patients 13.2, or one in 26,933 of the people.

CANADA WEST.

The Provincial Hospital of Canada West is in Toronto, York county. It was opened in 1853, and the record of the residences of the patients stated in the reports from that time to 1865, twelve years. The hospital has been offered equally to all the people of the Province.

The county of York constitutes the first District.

The second District includes three contiguous counties : Halton, Ontario, Peel.

The third District includes eleven counties, within 35 to 70 miles : Brant, Durham, Haldimand, Lincoln Simcoe, Victoria, Waterloo, Welland, Wellington, Wentworth, Hamilton City.

The fourth District includes fifteen counties, 70 to 150 miles from Toronto : Addington, Bruce, Elgin, Grey, Hastings, Huron, Lenox, London City, Middlesex, Norfolk, Northumberland, Oxford, Perth, Peterboro, Prince Edward.

The fifth District includes eighteen counties, 150 to 300 miles distant : Algona District, Ottawa City, Carleton, Dundas, Essex, Frontenac, Kingston, Glengary, Grenville, Kent, Lambton, Lanark, Leeds, Nipissing, Prescott, Renfrew, Russell, Stormont.

In the first District the sum of the annual populations for the twelve years under observation was 1,251,201, or an average of 104,266. They sent 393 patients, or 32.7, which was one in 3,183 people in each year.

In the second District the sum of people through the whole period was 1,105,797, an annual average of 92,149. From these 153 patients went to the hospital, equal to 12.7, or one in 7,227 of the people yearly.

In the third District the sum of populations was 4,181,592, an average of 348,466. The whole number of their patients in the hospital was 540, averaging 45, or one in 7,743 of the people yearly.

In the fourth District the sum of annual populations was 5,598,521, being an average of 466,543. Their patients in the hospital were 444 during the whole period, equal to 37, or one in 12,608 yearly.

In the fifth District the whole sum of populations was 4,331,015, an average of 360,917 yearly. They sent 297 patients in the whole period, or 24.7, equal to one in 14,582 people yearly.

NOVA SCOTIA.

The Provincial Hospital was opened in 1858, for the equal use of all the people of the Province. The records of seven years have been printed, showing the residence of the patients who were received from 1858 to 1864, inclusive.

The population of 1860 only has been obtained. No calculation is therefore made of that of the other years, but as this was near the middle of the period it will be, at least, near the truth, to assume this as the average of each of the years of the hospital operations that are known.

The Province is, for the purposes of this report, divided into four Districts.

Halifax county is the first District.

The second District includes four contiguous counties, within 65 miles of the hospital: Colchester, Hants, Lunenburg, Pictou.

The third District includes six counties, from 65 to 100 miles from the hospital: Annapolis, Cumberland, Guysborough, Kings, Queens, Sidney.

The fourth District includes seven counties, from 100 to 175 miles from Halifax: Cape Breton, Digby, Inverness, Richmond, Shelburne, Victoria, Yarmouth.

In the first District the population was 49,021 in 1860. 105 patients went to the hospital in the seven years, or a yearly average of 15, equal to one in 3,268 of the people.

In the second District there were, in 1860, 85,922 people, who sent 84 patients in the seven years, an annual average of 12, or one in 7,160 persons living.

In the third District the population was 91,966 in 1860, who sent 52 patients to the hospital, an average of 7.4, or one in 12,427 people in each year.

In the fourth District the number of the people in 1860 was 103,948, and their patients in the hospital were 34 during the seven years. This is equal to an annual average of 4.85, or one in 21,432 of the people.

Population to One Patient Annually Sent to Lunatic Hospitals.

STATE.	NUMBER OF YEARS.	DISTRICTS.				
		I.	II.	III.	IV.	V.
Maine,.....	1840-65	2,835	5,171	5,630	7,890	....
New Hampshire,...	1842-65	2,440	3,470	6,280	....	....
Massachusetts,....	1833-53	2,229	3,872	4,953	....	....
Rhode Island,.....	1849-65	3,094	5,279	....	....	....
New York,.....	1843-65	2,772	5,820	7,351	11,535	....
New Jersey,.....	1848-66	2,253	3,714	5,905	....	....
Pennsylvania,.....	1850-57	6,061	10,793	17,686	23,748	....
East Pennsylvania,.	1857-66	5,884	10,497	17,414	53,629	....
West Pennsylvania,	1857-66	3,650	10,585	22,382	....	....
Maryland,.....	1850-64	7,034	10,122	23,009	....	....
Virginia,.....	1828-59	5,472	12,314	21,570	24,433	25,105
North Carolina,....	1856-60	4,875	6,433	9,707	10,982	45,779
Mississippi,.....	1858	*15,018	7,026	13,890	16,151	21,276
Louisiana,.....	1848-58	6,653	15,235	16,645	21,399	25,822
Tennessee,.....	1852-59	3,923	8,318	13,164	20,440	*15,826
Kentucky,.....	†1824-55	3,198	10,670	12,964	24,132	27,801
Ohio,.....	1838-66	5,060	7,304	11,712	28,873	....
Illinois, ...	1847-64	3,306	7,865	9,317	11,753	15,585
Michigan,.....	1859-65	3,162	9,229	11,089	14,208	58,039
Missouri,.....	†1851-64	5,910	12,553	13,989	15,983	26,933
Canada,.....	1853-66	3,184	7,227	7,744	12,608	14,582
Nova Scotia,.....	1858-64	467	1,023	1,768	3,057	....

* There is apparently something unexplained in the record of one county in each of these Districts.

† Excluding 1844, '45, '46 and '47. ‡ Excluding 1861, '62 and '63.

In all these States the privileges of the hospitals are offered equally to the people of the counties. The patients of Oneida and Allegany counties in New York, of Mercer and Warren counties in New Jersey, of Dauphin and Venango counties in Pennsylvania, can enter on the same terms, enjoy the same advantages, and for the same price. The only difference is the burden of cost, care and labor of travel from their homes to the place of healing. And yet the actual use of the hospitals by, and the practical value of these institutions to the people of the remote districts have been only one-fourth as great in New York, about one-third as great in New Jersey, and less than one-third as great in Pennsylvania as they have been in the districts near to them.

Similar discrepancies in favor of the central counties and against the distant counties are seen to have existed in all the other States whose record has been obtained.

EFFECT OF MULTIPLYING HOSPITALS IN STATES.

This principle has been remarkably manifested whenever and wherever a second hospital has been opened in any State and placed in a district remote from the one previously in operation. The people who sent a few patients to the distant institution, now sent many to the hospital which was brought to their neighborhood. The number of lunatics that found a place of healing was suddenly and permanently increased.

In MASSACHUSETTS, the Hospital at Worcester was the only State institution for the insane in the commonwealth from 1833 to 1854, when the second hospital was opened in Taunton, Bristol county, for the southeastern part of the State. The Worcester establishment continued to receive all the patients from the northern, central and western counties until 1858, when the third hospital was opened in Northampton, Hampshire county, for the western district. In both of these districts there was a sudden and large increase of the insane, whose friends sought and used these new places of healing for them.

During the eight years, 1845 to 1853, previous to the opening of the Taunton Hospital, the people of Bristol county had sent 151 patients to Worcester, which was an annual average of one patient in 4,434 inhabitants.

During the eight years after the hospital was opened within their borders they sent 324 patients to it, which was an annual average of one patient in 2,194 people.

In the former period the people of Plymouth county sent one in 3,719 of their number, and in the latter period one in 2,774.

Barnstable, Dukes and Nantucket counties sent, in the former period, one in 4,118, and in the latter, one in 3,573 to the hospitals.

Population for One Patient sent Annually to the State Hospitals.

COUNTY.	1845 to 1853.			1854 to 1862.			RATE OF INCREASE.
	Patients.	Sum of Populations.	People to 1 Patient.	Patients.	Sum of Populations.	People to 1 Patient.	
Bristol,.....	151	669,581	4,434	324	810,903	2,194	102.1
Plymouth,...	132	493,215	3,719	204	565,981	2,774	34.
{ Barnstable,	104	429,319	4,118	118	421,662	3,573	15.2
{ Nantucket,							
{ Dukes,....							
Five Counties	387	1,592,115	4,111	646	1,798,546	2,784	42.9

During the four years—1854 to 1858—the people of Hampshire county sent 37 patients to the Worcester Hospital, which was an annual average of one in 4,008 inhabitants. In the four years after the opening of the third hospital in their midst, the same people sent 85 people, or one in 1,787 of their number to its care.

Franklin county sent in the former period 19 patients, or one in 6,574 people to Worcester, and in the latter period 52, or one in 2,419 people to Northampton.

Berkshire county is geographically fifty miles nearer to Northampton than to Worcester. But a range of mountains lies between, and the roads are difficult for travellers, who can use only private conveyances, except the Western Railroad to Springfield, and the Connecticut River Railroad from Springfield to Northampton. This practically reduces the difference of distance between the two hospitals to thirty miles. And many when once in the cars on the Western Road, find it

easier to continue fifty-four miles further to Worcester than to change cars and go twenty miles to Northampton with their patients. Therefore the increase is less in Berkshire county than in the others. Nevertheless, there was an increase.

Before 1858 the Berkshire people sent 33 patients, or one in 6,937 people yearly to Worcester, and after that they sent to Worcester and Northampton 47 patients, or an average in each year of one in 4,715 people.

To the towns in the eastern part of Hampden county Worcester is nearer and more accessible than Northampton. Most of the people must necessarily use the Western Railroad, whether going to Worcester or Northampton, and all must change cars at Springfield if they go to Northampton, but not if they go to Worcester.

The people of Hampden county sent in the former period one in 2,185 of the living to Worcester, and in the latter, one in 1,988 in each year.

Population to One Patient sent to Hospital before and after Northampton Hospital was opened, Western District.

COUNTY.	1855 to 1858, four years.			1859 to 1862, four years.			INCREASE.
	Patients sent.	Sum of annual Populations.	People to 1 Patient.	Patients sent.	Sum of annual Populations.	People to 1 Patient.	
Berkshire, . . .	33	212,437	6,437	47	221,640	4,715	38.6
Franklin, . . .	19	124,916	6,574	52	125,830	2,419	171.2
Hampshire, . .	37	148,294	4,008	85	151,897	1,787	124.3
Hampden, . . .	101	220,680	2,185	116	230,784	1,988	9.9
Four Counties	190	706,327	3,717	300	730,151	2,433	52.7

The people of Hampshire county nearly trebled the number and proportion of their patients in the hospital; the people of Franklin and Bristol more than doubled them, and the other counties also increased them very greatly, and thus so many more of their lunatics found

places of healing and protection when the hospital was brought to their neighborhood and within their reach.

IN OHIO the State Hospital at Columbus received patients from all the counties from 1838 to 1858, when the Northern Asylum at Newburgh, Cuyahoga county, and the Southern Asylum at Dayton, Montgomery county, went into operation and received patients from certain surrounding districts, which were defined by the law.

The northern districts had sent to Columbus 403 patients, an annual average of one patient in 13,201 of the population during the twelve years previous to the opening of the hospital in their midst at Newburgh.

During the next three years and eight months after the new hospital was opened, the same people sent to its care 549 patients, an annual average of one patient in every 3,138 of their number living during these years.

In the first period of twelve years, 1838 to 1850, the people of the Southwestern District had sent to the asylum at Columbus 373 patients, which is an annual average of one in 13,126 people. During the nine years and two months next after the new asylum was opened in their own neighborhood, at Dayton, they sent 1,079 patients to its care, which is an annual average of one in 4,688 people living in each of these years.

Population to One Patient sent.

District.	To Columbus.	Home Hospital.	Increase Per Cent. of Patients.
Northern,.....	13,201	3,138	420
Southern,.....	13,128	4,304	305

IN KENTUCKY, from the opening of the Lunatic Hospital at Lexington in 1824, to the end of 1855, it was the only institution for the insane in the State. In 1855,

the second hospital was opened at Hopkinsville for the patients in the western part of the State.

The published records do not furnish means of determining the number of patients sent to the Western Hospital from each county through each of the years from 1855 to 1860, when it was burned; but, comparing the reports of this institution with the Eastern, it is found that the twenty-six most westerly counties, within 80 miles of Hopkinsville, sent through the twenty-eight years, 1824 to 1855, (excepting 1844 to 1847, of which no records are to be found,) 203 patients, which is an annual average of 7.2, or one in 15,015 people. During the three years after the new hospital was opened in their midst, they sent 117 patients, which was 39, or one in 6,271 of the people in each year.

During the twenty-eight years, the whole State sent 1,543 patients, or one in 12,913 people annually to their single central hospital. During the four years next following the opening of the Western Hospital, the whole State sent 513 patients to their two hospitals, or one annually in 8,017 of the population.

EFFECT OF RAILROADS AND OTHER FACILITIES OF TRAVEL.

Facilities of travel, navigable rivers, canals, railroads, public highways, public conveyances, which render communication easy and cheap, and intercourse familiar, and virtually diminish distance from the hospital, increase the ratio of patients that are sent to it. We therefore find that those counties which are situated along the course of rivers, canals, roads, etc., leading directly to the situation of the hospitals, have sent more patients to these institutions than other counties of equal population

and at equal distances, but not favored with these facilities of communication.

Ten counties in New York along the line of the railroad, canal, etc., east and west of Utica, with easy means of travel, having a sum of annual populations equal to 15,622,250, sent 2,151 patients to Utica; while, during the same period, ten other counties, northeast and southwest from Utica, with no easy means of communication, with a sum of 7,840,684 annual populations, sent 647 patients, or one in 11,934 of their number to the State Hospital.

Taking all these facts into view, we have here indisputable proof of the effect of distance in diminishing the practical benefits of lunatic hospitals to the people of any district. In all these States these hospitals are as open and their advantages as freely granted to the patients from the most remote towns as to those in their very neighborhood. It is not hinted, or even suspected, that the lunatics whose friends reside afar off are not as kindly, as faithfully, and as successfully treated, and at as small a cost as those whose friends are so near as to keep a watchful vigilance over their welfare.

A HOSPITAL IS BETTER KNOWN TO THE NEIGHBORING PEOPLE.

The idea of the hospital purposes and its management is familiar to those who live in its vicinity. They know its means, its objects, and its administration; they know the character of its officers and its attendants.

They are frequently witnessing its operations and results in the many who are going to and returning from it, in improved or restored mental health. Whenever they think of the possibility of their becoming insane, the idea of the hospital presents itself to their minds, in

the same connection, almost as readily as the idea of their own chambers, their own physician, and the tender nursing of their own family is associated with the thought of having a fever or dysentery. And, when any one of their family or friends becomes deranged, the hospital occurs to them as a means of relief, and they look upon it as a resting place from their troubles.

But this ready association of the hospital with lunacy, and this generous confidence in its management diminishes as we recede from it. The people in the remoter places know the general facts, but distance lends an obscurity to the notion, and thus the character of the hospital and its administration do not stand before them, as the thought of home and domestic arrangements, of which they can cheerfully and trustfully avail themselves in any emergency. To them the hospital seems a strange place—perhaps a place of unkind restraint or even of needless confinement, rather than a home of tenderness. Its officers are to them strangers rather than friends; and its attendants, though good and honest men, are not as household comforters and nurses, or even as neighbors, whose ready and affectionate sympathy is sure, and on whom they are accustomed to call in time of trouble, and to whom they unhesitatingly commit the care of their disordered and distressed relatives or children.

Then the unwillingness to be far separated from their suffering or weakened friends operates with many. This is indeed a mere feeling or sentiment; but it is converted into practical facts, and retains some at home who would otherwise be sent to and cured in a hospital if it were nearer to them. The State Lunatic Hospital, when it is used, is no better to the people of Oneida than to those of Chautauqua, Cattaraugus and Clinton; but so long as

a portion of the people of the remote counties do not feel so, their insane friends are not sent there.

The difficulties and expense of sending lunatics over long distances, or unfrequented and indirect roads, or by private conveyances, are perhaps the most effectual obstacles in the way, and more than any other diminish the number of patients, with the increase of miles, that separate them from the hospital.

For these reasons the towns in the neighborhood of the public hospital in this State have enjoyed more than four times as much of its benefits as the remote towns ; and all the other hospitals mentioned in this article have been compelled to confer their blessings in a similar, and some of them in a much greater disproportion upon the people of the neighboring than upon those of the distant districts of the States to which they respectively belong.

We think we have here presented facts enough to establish it as a general principle, that the advantages of any public lunatic hospital, however freely and equally they may be offered to all the people of any State, are yet, to a certain degree, local in their operation, and are enjoyed by people and communities to an extent in proportion to their nearness to or distance from it.

Whenever and wherever the same causes exist, the same effects must be produced, and any hospital that may be hereafter established must be subject to the same law.

This law of nearness, inviting and increasing the patients, and of distance, preventing them and diminishing the number in hospital, is our very nature, and must operate in the future as well as the past. The people

will be influenced by the same motives in time to come as they have been in the years that have gone by.

There are then two policies in regard to providing for the insane presented to the people of New York for their adoption. One is to continue the present plan of having all the patients sent to a central establishment from all the State; the other proposes to create small local asylums in the west, northeast and southeast, in the midst of the people who wish to use them for their insane.

The unequal and unjust operation of the former plan has been demonstrated in this report, and is manifestly a necessary and natural law which will operate in all places and all times, in similar circumstances. The other plan will give to all parts of the State the privileges which have been hitherto withheld from them, but which have been enjoyed by the central counties, of easy and frequent access to the means of healing their insane; and of a larger proportion of them thus restored to health.

Whatever is now done, whether it be the building of the new and great central establishment for the incurable, or the creation of the smaller local institutions, it will be the plan for twenty years, or more, to come; for another institution with that already now in operation, will seem to meet all the wants of the State, and to accommodate all who seem to need it, or all who are within accessible distance, for the next, as the Utica Asylum has for the last twenty years.

Yet the same inequality will remain. The many will be sent from the neighboring counties, and all the recent cases in Oneida county, and all the old cases in the county of the incurable and chronic asylum, and nearly

all of those in contiguous counties will be thus provided for; while a few, varying from one-quarter to one-half as large a proportion will be sent from the remote and remotest districts, and the remainder, the majority of those attacked and of those needing the healing and soothing and protecting influence of the asylum, will be left at home, without means of restoration or proper guardianship.

On the other hand, if the other policy is adopted, and asylums are established in the west, northeast and southeast districts, in the midst of and accessible to the patients, those districts will send as large a proportion of their insane to be healed and to be cared for as are now and have been sent from Oneida and the neighboring counties to Utica.

It is then for the Legislature to decide, and especially for the representatives of the counties 100 miles and more from Utica, whether this unequal provision shall be continued; whether the bounties of the State shall be so liberally given to the central portion and so sparingly allowed to the remote parts of the State.

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14. *Twenty-Sixth Annual Report of the Board of Trustees and Officers of the Central Ohio Lunatic Asylum, to the Governor of the State of Ohio:* For the year 1864.
15. *Report of the Proprietors of the Insane Asylum, East Portland, Oregon,* December 1, 1865.

1. The Report of the Tennessee Hospital covers the period from August 1, 1862, to April 1, 1865. At the former date there were 204 patients in the institution. There have been admitted since 134, making a total of 338, who have been under treatment. Of the 168 discharged, 77 had recovered, 36 were improved, 13 were unimproved, 37 died, 4 eloped, and 1 was sent to the Pest House.

Situated on the great military thoroughfare from Nashville to Chattanooga, this institution did not escape the evils of civil strife and military license. Dr. Jones thus alludes to some of the embarrassments attending his administration since his appointment in July, 1862:

Very soon after I was commissioned a Superintendent, two divisions of the Federal Army encamped upon the farm, and in despite of orders, within a few days burnt our supply of wood and about five miles of excellent cedar fence; thus leaving us, late in the fall, without fuel and the farm almost fenceless. * * * In regard to fuel we were frequently in want, and on the verge of suffering, but fortunately never suffered. Occasionally you might have seen, before daylight, the Superintendent, the farm hands and a few patients, in the woods felling trees and hauling fuel to warm the house, that others might be comfortable. The work had to be done, and we did it, early and cheerfully. Sometimes, owing to military orders, ob-

streperous Provost Marshals, or other causes, we retired at night not knowing where subsistence for the next day should come from; but each succeeding day brought with it, in the Providence of God, bread enough and to spare. * * * Much of the time I have been without an Assistant Physician, and for a time without a Steward, thus having triple duties to perform. The times, too, have been unpropitious to order and subordination. All men, under the influence of the once popular contagion of the country, have become more and more rebellious. Employés and servants, dissatisfied, have been seeking change, and to retain them or provide others, we have had of necessity to increase wages; this, therefore, has become one feature of increased expenses.

Of the 60 cases attributed to "war excitement" in the table of causation, Dr. Jones observes:

Though I have presented sixty cases of derangement, apparently superinduced by causes incident to the war, such as exposure to camp-life, destitution of political refugees, nostalgia, etc., yet I very much question whether, in the majority of cases, these have not taken the place of other exciting causes; and whether indeed, the proportion of cases is greater than would have been developed, in an equal number of persons engaged in the ordinary pursuits of life. In other words, and notwithstanding the destitution and devastation of armies, the aggregate population of citizens and soldiers has probably not furnished during the war a larger number of insane than would have occurred independent of the war and in times of peace.

2. Dr. Kirkbride's Report offers some excellent reflections on the organization and supervision of hospitals for the insane. This subject, he says, "is now well understood, and few new hospitals are now established without conforming more or less closely to the 'propositions' adopted some years since by the Association of Medical Superintendents of American Institutions for the Insane." He adds, and this is the gist of the matter:

No matter what else may be done, it will be found that placing the right persons in these official places, and giving them a proper support in the performance of their duties, will be essential to the success and usefulness of such hospitals.

The suggestion that formal legal proceedings should be instituted in all cases before the admission of a patient into an asylum, finds no favor with Dr. Kirkbride, but, on the contrary, the following reasons against such a procedure :

The objection, then, to these formal proceedings in the ninety-nine out of a hundred cases in which there could hardly be a question, would be that many families would not submit to such an exposure, that many others could not afford the expense, which would absorb the means that directly applied might have restored the patient, and above all, that the time for successful treatment would often have passed before his friends were willing to take the necessary steps for his admission.

Dr. Kirkbride reports 468 patients under treatment during the year : 183 discharged. Of the latter 84 had recovered ; 58 had improved ; 30 were unimproved, and 17 died. Remaining, 279.

3. Dr. Butler's Report presents the following statement of the operations of the Hartford Retreat for the year ending March 31, 1865 : Number at the beginning of the year, 231 ; admitted since, 155. Total treated, 386. Discharged : recovered, 57 ; improved, 45 ; unimproved 19 ; died, 27. Remaining, 238.

4. We have received the first Report of the New Brighton Retreat. This is a corporate institution in Pennsylvania, situated in the borough from which it takes its name, and designed for the treatment of chronic insanity in women of "the independent class." Thus far its operations have been limited to 14 admissions and 6 removals. Of the latter, 2 had recovered, 1 had improved, and 3 were unimproved. Dr. Kendricks is the Medical Superintendent.

5. Dr. Tyler devotes considerable space to a popular

and intelligible exposition of the rationale of the treatment of insanity in the Hospital. This is his conclusion :

To do this service for one's own relative in his own home, is clearly an impossibility, and to do it otherwheres is practically almost the same. For a stranger, however skilled and resolute and kind he may be, to undertake it in a patient's own home and amongst his own friends to whom he can always appeal, though he may be welcomed by him at first, will end in failure, and his being considered an usurper. For a stranger to render this service away from the patient's home, and from all that can revive his morbid exercises, and under the best possible conditions of surroundings and adjuvants, is "hospital treatment."

From the statistical tables we learn that 302 patients were treated at the McLean Asylum during the year ending January 1, 1865. Of these, 101 were received in the course of the year. The discharges for the same period numbered 107, of which 42 had recovered, 35 were improved, 3 were unimproved, and 27 died.

6. From Dr. Butler's Report we gather the following data respecting the Insane Department of the Philadelphia Alms-house. Number of patients in hospital January 1, 1864, 534. Admitted during the year, 364. Whole number under treatment, 898. Daily average, 555. Discharged recovered, 132; improved, 79; unimproved, 30; died, 95: whole number discharged, 336. Remaining December 31, 1864, 562.

The mortality of the year was much increased by the catastrophe of the 20th July; a full account of which is given in the last volume of the JOURNAL.

7. Dr. Brown, of Bloomingdale Asylum, submits the annexed statement of the operations of this venerable institution for 1864: Number of patients under treatment January 1, 141; admitted subsequently, 140;

total during the year, 281. Discharged recovered, 52; improved, 30; unimproved, 12; died, 17; total discharged, 111. Remaining December 31, 1864, 170.

8. Dr. Pliny Earle refers to his success with the hypodermic exhibition of morphine in insanity :

In the course of the past year, the hypodermic method of administering morphine has been used in several cases, with eminently beneficial effect. As that medicine, when thus administered, is not followed by the unpleasant consequences—sickness and headache—which so frequently succeed its hypnotic effects when given by the mouth; and as many patients needing it refuse to swallow *any* medicine, the hypodermic method becomes a resource of very great value in hospitals.

Although the method by subcutaneous injection possesses the merits ascribed to it by Dr. Earle, it should be borne in mind that it is sometimes followed by unpleasant consequences, and that great caution should attend its use, lest the solution be directed into a subcutaneous vein instead of into the cellular tissue, an accident which lately happened to Professor Nausbaum, of Munich, and which was followed by the most dangerous symptoms. Professor N., in describing his own case, says he has seen similar effects in a smaller degree in two of his patients; and in view of the almost utter impossibility of at all times avoiding veins, he recommends that the injection should be made very slowly, and the syringe stopped and its motion reversed on the first sign of danger.

The general numerical results of the Northampton Hospital for the year are as follows: Admitted, 134; whole number under treatment, 468. Discharged, 116. Condition of those discharged: Recovered, 33; improved, 27; unimproved, 15; died, 41. Remaining September 30, 1865, 352.

9. Following some general observations upon the importance of the early treatment of insanity, Dr. Worthington alludes to a very stupid, but a very popular error, by no means restricted to the ordinary public, but quite commonly held by those physicians in general practice who invariably "skip" the papers on insanity in the medical journals.

Many persons seem reluctant to believe that medicine can minister relief to a mind diseased, and are much more disposed to regard institutions for the insane merely as places of confinement and safe-keeping, than to consider them as they really are hospitals for the recovery and cure of their patients. This is only one of the forms under which the ancient ignorance of everything connected with the true nature of insanity still continues to be manifested, to the great injury of this much neglected class of our afflicted fellow-creatures, and which makes it incumbent on all who wish to elevate their condition, to allow no suitable opportunity to pass without attempting to inculcate more correct ideas on the subject.

At the date of the last Annual Report of the Friend's Asylum, 63 patients were under treatment. During the year 25 more were received, making a total of 88. Of the 22 discharged, 6 were recovered, 4 had improved, 3 were unimproved, and 8 died.

10. The Report of the Blackwell's Island Lunatic Asylum bears the signature of James B. Culbertson, M. D., Acting Resident Physician. It opens with a deserved tribute to the memory of the late Medical Superintendent, Dr. Ranney :

It is our lamentable duty to record the death, by Typhus fever, on the 7th of December, of our most excellent and worthy Resident Physician, Moses H. Ranney, M. D. He had filled the office of Resident Physician in this asylum for the last eighteen years. He deservedly stood at the head of the profession in the department of which he made a specialty. As an officer in a public institution of

this character, we can only say *he had no superior*. All who came in contact with him, whether officially or otherwise, felt at once that they had found a friend, and one in whom they could place the most implicit confidence. In his death the Institution has sustained a loss which it will be almost impossible to fill.

During the year there were under treatment in this great charity, 1,137 patients. Of these 160 were discharged, recovered; 64 improved; 43 unimproved; and 111 died. Remaining December 31, 1864, 759.

11. Dr. Bancroft announces the completion and successful operation of the new steam-heating apparatus, the work on which was begun two years ago. He pronounces it convenient, efficient and economical, requiring but four-fifths of the fuel required by the old method.

On the 1st of May, 1864, there were 217 patients in the New Hampshire Asylum. Admitted subsequently, 107; making a total of 324 under treatment. The discharges were, recovered, 42; improved, 23; unimproved, 14; died, 22. Remaining in the asylum May 1, 1865, 223.

12. Dr. Van Anden again urges the importance of enlarging the Asylum at Auburn, and of such change in the law as will permit all the criminal insane to be cared for by a provision made exclusively for themselves, and thus prevent their association with other insane patients who have been guilty of no penal offence. Under the present law of organization, this institution accomplishes but half the good for which it was originally designed.

On the first day of October, 1863, the beginning of the fiscal year, there were 79 patients in the Asylum for Insane Convicts. During the year there were admitted from Auburn Prison, 3; from Sing Sing Prison, 3; giving a total of 85 under treatment. Of these 7 were

discharged, recovered; 4 improved, and 3 unimproved. Remaining September 30, 1864, 71. Whole number received since the opening of the asylum, 142. Whole number discharged during the same period, 71, (including 7 deaths.)

13. Dr. Gray adverts to the fact, borne out by accumulated experience, that the efficient causes of insanity are largely physical, and in a great degree avoidable, and that moral causes for the most part act indirectly and collaterally. In this relation he says:

It is confessedly no easy matter to determine, in individual cases, the relative influence of physical and moral causes, and in many instances we may, and do fail entirely to discover any cause; yet we can safely affirm that the disease itself is always physical, and that no moral cause is efficient in its development until the disorder of some function or functions shall have been induced by loss of sleep, defective, perverted or arrested nutrition, or the exhaustion of the cerebral powers by intense or prolonged action. Thus grief, anger and other emotions and passions, while always impressing and affecting the physical man, cannot of themselves induce the mental state termed insanity. So also with intense application to study or business.

There can be no disease of mind. The term mental disease, as used by medical men, implies abnormal mental manifestations, the results of bodily disease. The prolonged mental disturbance called insanity, is no more a disease of the mind than is the transient delirium accompanying fever and other affections. The practical lesson we would deduce, is the importance of preserving the general health, as the only sure prophylactic or preventive means against insanity. If the professional or business man finds his general health giving way under excessive application, the part of wisdom is to abate or cease work for a time, and allow the recuperative agencies of the system to build up a new stock of tissues. If intense or prolonged grief or anxiety are consuming all the vital resources, taking away the appetite and sleep, let the sufferer clearly understand the danger consequent, and secure sleep by appropriate medical remedies, and take food as a matter of duty, and make full and continuous efforts in

directing the attention from sources of sorrow by devotion to practical duties. The abstraction of the mind into useful and pleasurable channels, even for brief periods, will interrupt and at length overcome the morbid current of thought, if in the meantime sleep and nutrition are secured.

The operations of the State Asylum, at Utica, for the year ending November 30, 1864, were as follows: Number of patients at the commencement of the year, 534. Received subsequently, 319. Whole number treated, 853. Daily average under treatment, 560½. Discharged, recovered, 109; improved, 44; unimproved, 84; not insane, 4; died, 48. Total discharged, 289. Remaining November 30, 1864, 564.

14. In this, his last Report as Superintendent of the Central Ohio Asylum, Dr. Hills advocates a special establishment for the chronic insane of the State, for whom no provision exists. The class now without proper care and treatment he estimates at not less than one thousand. He recommends:

1st. Procuring a farm with 500 acres, near a railroad, with good building stone, water and fuel. 2d. The erection of two buildings, one for each sex, for, perhaps, one hundred each, and admitting these two hundred promptly. 3d. Adding annually other buildings, and promptly receiving the patients until the maximum number was provided for. These buildings to be clustered in village style, each with its yard and other surroundings. 4th. The first attention should be given to the health, comfort and happiness of these patients, and the next to developing their industrial powers and capabilities, with the combined object of health, happiness and self-support. 5th. The establishment to be officered with a Board of Trustees, Superintendent, Assistants, Steward and Matron, as the asylums are. 6th. When this institution has grown to the extent that prudence or experience dictates, another of like character to be started elsewhere. 7th. The designation to be "Farm Home for the Insane," or, in view of the village style of building suggested, "Hamlet Home for the Chronic Insane."

Dr. Hills expresses his unhesitating belief in the feasibility of making such an establishment “nearly self-supporting.” In corroboration of this opinion he refers to the so-called Colony of St. James, in France. This, he says, is “the most perfect example of an institution truly self-supporting.” That our readers may learn to what extent the Colony of St. James is “self-supporting,” we present the following extract from Prof. Charles A. Lee’s description of his visit to this famous private Asylum, in 1862, and published in the Fifth volume of the *American Medical Times*. The paper from which this extract is taken contains—so Dr. Hills informs us,—“the best published account of this institution :”

During the last twelve years, in spite of many discouragements and obstacles, this institution has been constantly increasing in prosperity. Beginning with 735 patients, it has now over 1,300—1,200 being the number to which it is limited by Government—551 males, and 666 females ; of whom 1,012 are indigent, and 215 pay-boarders. Patients are sent to it from three departments, who pay one franc per day for males, and 95 centimes for females. The pay-patients pay from \$600 to \$1000 per year, according to accommodation, number of attendants, etc. In short, the institution is not only self-supporting, but a source of wealth to its proprietors.

Assuming that in 1,012 indigent patients the sexes are equally divided, (for this is not shown in the above extract,) it appears that the Proprietors receive \$36,938 per annum for the support of 506 indigent males, and \$36,121,10 for 503 females ; or a total of \$73,059,10. They receive from \$600 to \$1000 per annum from each of 215 private patients. Assuming \$800 as the mean, the receipts from this source will amount to \$172,000. The yearly receipts, therefore, from these two classes, will make a

grand total of \$245,059,10, which divided by 1227,* the whole number of patients, gives \$199.72 as the average yearly, or \$3.84 as the average weekly income from each patient.

We fear that Dr. Hills and the learned Professor had forgotten their early lessons in Daboll's Arithmetic, when they put forth the assertion that the Colony of St. James "is a truly self-supporting institution."

The Central Ohio Asylum admitted 163 patients during the year, and treated 415. There were discharged, recovered, 93; improved, 16; unimproved, 29; died, 12. Remaining Nov. 1, 1864, 265.

15. This is a private institution at East Portland, under the charge of Drs. Hawthorne and Loyea. The insane poor of Oregon are sent there by special contract with the State authorities. The report of the proprietors for the fifteen months ending Dec. 1, 1865, is received. From it we learn that the total of patients treated from Sept. 1, 1864, to Dec. 1, 1865, was 105. Of these 24 were discharged cured, 4 escaped; 9 died.

De La Folie Consecutive aux Maladies Aiguës. Par le Dr. E. MUGNIER. Paris: 1865.

On Insanity following Acute Diseases. By Dr. MUGNIER.

When all rare and startling phenomena were supposed to have a supernatural origin, no wonder that insanity was held to be nothing less than demoniacal possession. And so at a later period, when it was vaguely felt that nature holds within herself almost infinite power, this

* There is some discrepancy in the figures which give the whole number as over 1300, and those which follow. As the latter agree with each other, our calculations are based on a total of 1,227.—EDS.

mysterious disorder was, consistently enough, attributed to the influence of the moon and stars. But it is remarkable that at the present time, with all our boasted knowledge, we have advanced little farther than to fully recognise our ignorance in respect to the causation of mental disease. Although we are practically a thousand times better prepared to deal with it and its unhappy subjects than were the Egyptians, or the Europeans of the middle ages, yet our speculative curiosity is baffled here as it is in the investigation of no other class of natural phenomena so general, and so apparently within our reach. It is true, there is no series of vital phenomena, not even the shortest and least complex, of which we can trace every step, from first to last. Yet the cause—meaning by this term, the necessary and constant antecedent—of the numerous morbid changes in the living organism, is perfectly well settled. Small-pox, for instance, arises from contagion, and never *de novo*. Certain symptoms attend its invasion, a specific form of lesion marks another stage, and, after a definite period, it tends toward a termination, in death or recovery. How totally different from this is insanity, to which not a single fact in human knowledge has any constant relation, either as its immediate or remote antecedent. Heredity, the most important perhaps, can not be traced in one-half the cases. Of the conditions immediately preceding an attack of insanity, we should say insomnia is the most generally present; but how often the disease is ushered in by days of drowsiness or stupor. And as this stupor may be followed by a paroxysm of mania, or a period of sleeplessness be succeeded by dementia, so may the symptoms of these two disor-

ders replace each other, or even be blended together, in the same attack.

It is, however, this problem of causation which must be in some degree solved before further progress can be made in the treatment of insanity. This is believed to be true, indeed, of the present stage of research in all diseases. Their etiology and natural history are now the chief points of study. Nor can we, in our investigations, entirely neglect the mental for the physical, as some have recommended. It is a necessity of human thought that mental phenomena be regarded as having a twofold aspect. The hope that pure metaphysics will add to our positive knowledge of mind is, of course, at an end. The strongholds in which nature has preserved her dearest secrets are now acknowledged impregnable to direct assault in this way. But there is a truly scientific psychology, in which the manifestations of mind are studied objectively, and principally in their evolution and growth. This special direction of thought deserves all possible aid and encouragement.

Still, it must be confessed that hitherto all our practical, and whatever we have gained of scientific knowledge of insanity, has come through its study from the side of physics, and chiefly in its analogies with bodily disease. This is what has stimulated to the frequent proposal of classifications founded on its etiology or pathology, as a substitute for the old ones based upon symptoms. And the success with which in this way we have made solid ground on the quicksands of mental disease, is really encouraging. When we can connect a case of insanity with certain hereditary facts, with habits of intoxication, with the puerperal state, with general paresis and other nervous derangements, there is no

doubt that we thereby throw a flood of light upon questions of treatment and prognosis.

It is to extend our knowledge in this direction, that the book of Dr. Mugnier has been written; and the author seems to have had excellent opportunities for noting and collecting cases with a view to such an attempt. He has studied in the wards of the Salpêtrière with the eminent Dr. Baillarger, and had free access to the voluminous records of that hospital. To the cases derived from this source he adds several, a part of which have not heretofore been published, from the note-books of Drs. Thore, Delasiauve, and Morel. There are of the whole forty-three, in twenty-two of which insanity followed typhoid fever, and in all but three of the remainder bore the same relation to cholera, pneumonia and pleurisy, or acute articular rheumatism. In eleven cases the form of insanity was mania; in twelve, acute dementia; in six, melancholia; in eight, monomania of ambition; in four, hallucinations; and in two, general paralysis. The cases following typhoid fever, Dr. M. thinks specially worthy of attention. Of these, twelve were acute dementia, five of monomania of ambition, three of melancholia, and two of hallucinations. None were cases of mania. Surely there is not enough in this view to more than suggest typhoid fever as a specific cause of insanity. The cases are too few, and there is too great a variety in the forms of the secondary disorder. But let us say that Dr. M. puts forth no claim to the discovery of a new form of mental disease. He has observed and collected together a certain number of well-attested cases, having several important relations in common. And when these points of resemblance are stated, no doubt our readers will deem them of sufficient interest

to warrant the labor expended upon them. They are not mere cases of delirium arising in the acute stage of fever, although such deserve more attention than they have received. Nor are the cases of dementia those in which this condition corresponds to the stage of extreme vital depression in fever. The insanity, of whatever form, has supervened after convalescence from the bodily disease was established. The maniacal cases are of the kind classed by Dr. Baillarger under the head of congestive mania. It is this form of mania which ushers in general paralysis, and certain writers have considered it as always indicating the first stage of that disease. Dr. Schaller, of Vienna, has given the name of typhomania to the mania which succeeds typhoid fever. In England and in this country the term is used to denote that form of acute mania not connected with typhoid fever, which has also been called "exhaustive mania," "asthenic mania," and "Bell's disease." Finally, typhoid fever was deemed by Esquirol a predisposing cause, merely, in cases observed by him. Max Simon, several of whose cases are comprised in the collection of Dr. Mugnier, believes, on the other hand, that the fever is the immediate and determining cause of the mental disorder. But the truth is, we have not the means as yet of forming a probable opinion upon this point. A single but most serious defect, which appears in the cases so carefully collated by Dr. M., will make this but too apparent. In nine only of the forty-three cases, was the question of heredity and other predisposing causes carefully inquired into. That this must greatly detract from their value, it is not necessary to say. But we are almost in despair of any advance in the etiology of insanity, when we think how imperfect in this very

respect our cases must inevitably be. We suppose all who have studied mental disease in the wards of an hospital—and unhappily it is little studied elsewhere—have had the same disheartening experience. Of the predisposing causes not only, but of the entire prodromic stage of the disease, and of its earliest symptoms, our knowledge is often entirely wanting, or at the best most unsatisfactory. We may from this derive an unanswerable argument, against those who would extend and strengthen the system of specialties in medicine. They seem at first to heighten practical skill, by directing it solely to one class of cases, but in the end are found unfavorable to real progress. Through them we are pretty certain to lose in breadth, what we gain in concentration of view. Without free and constant communication between them, and with the profession in general, we are convinced that the highest success can not be attained in medical science.

As, unfortunately, in more than three-fourths of these cases it can not be known whether any predisposing causes exist—for such conditions as age, climate and season are really not worthy of notice—Dr. M. does not feel warranted in considering the acute disease anything more than an exciting cause of the subsequent insanity. We should differ with him, we confess, in his opinion that the proximate cause in the greatest number of cases is a cerebro-meningeal congestion. It is generally to be observed, no doubt, but, it seems to us, always as the result of deranged nutrition, the ultimate fact, as we believe, in the physical series.

In 12 of the 22 cases of typhoid fever, the form of insanity was dementia. This we should have anticipated, from the extremely debilitating character of the

bodily disease, and nothing is left to be inferred as a result of any specific influence.

The results of treatment in the 43 cases were, 37 cured, 4 died, and 2 not ascertained; an average of 8 cures out of 9 cases. "The average ratio of cure," says Dr. M., "in the various forms of insanity, taken together, is 1 in 9." He certainly can not have read attentively the reports of asylums in this country. In nearly one-half of his cases, the duration of the insanity has not been more than one week. The prognosis, then, is most favorable, as to the prospect of a certain and speedy cure.

Nevertheless, the treatment is a matter of great importance. Where circumstances favor it, this may be carried on in the family of the patient, if the disease takes the form of dementia. But all cases of mania, melancholia, and especially those of hypochondria and of monomania of ambition, should be treated in an asylum, and strictly secluded from their relatives and friends. The further treatment should be rather through regimen and hygienic means, than medicines proper. In the cases of dementia, a purely tonic treatment is indicated. In acute delirium and persistent mania, baths are especially recommended. These should not be of the extreme duration practiced by Dr. Brierre de Boismont—that is, from 18 to 20 hours—but may be given for 5 or 6 hours each day, and continued uninterruptedly during two, three, or even four months, if necessary.

The question is asked, whether the menstrual flow, which, in cases of females similar to the above, is usually suppressed, should be brought on by medicines at the proper time. Dr. Baillarger is opposed to such a practice. He believes that a complete and permanent cure

may be effected, even when the suppression persists; and finds that, after a time, the function will return without artificial aid.

It is important, again, in a medico-legal point of view, that the subject of insanity following acute diseases should be carefully studied. In cases involving such great responsibility as those of criminals and testators, where life and property chiefly depend upon a correct diagnosis, every circumstance which has the least bearing upon the issue, is of importance. Finally, the following *résumé* is submitted in conclusion :

1. There is a certain number of acute diseases liable to be followed by insanity.

2. Apart from the puerperal state, and from the various kinds of intoxication, which have not been considered here, these diseases are, especially, typhoid fever, pneumonia, and cholera; more rarely, the eruptive fevers, and acute articular rheumatism.

3. Insanity appears to be connected, in these cases, with an active or passive congestion of the brain, coincident, often, with a condition of general anemia.

4. The forms of insanity most frequently found in this connection, are acute dementia and mania; less frequently, ambitious monomania and hypochondriacal melancholia.

5. New investigations are necessary to establish the rôle of heredity in the causation of these cases.

6. The prognosis is, in general, extremely favorable, and the duration of the insanity very brief.

7. A tonic system of treatment succeeds best, in the great majority of cases.

Obscure Diseases of the Brain and Mind. By FORBES WINSLOW, M. D., D. C. L., Oxon., etc. Philadelphia: Henry C. Lea. 1866.

The second American, from the third English edition of Dr. Winslow's valuable treatise has just reached us, from the well-known publishing house of Henry C. Lea, late Blanchard & Lea. The work was reprinted by this house soon after its first publication in England, in 1860, and took rank at once among standard medical books. As it received a somewhat extended notice at that time in the JOURNAL,* we need only refer to it briefly at present.

We believe that a work of real value may suffer more harm from indiscriminate and excessive praise than from any degree of unjust criticism. If this be so, Dr. Winslow has the best possible grounds of a suit for damages against the reviewers.

They have lauded his work as the "master-effort of a great philosopher," a miracle of science, a model of classical English, and a treasury of practical knowledge of inestimable worth. If they had looked over the preface, they would have found that it has no philosophical or scientific purpose, and is not devoted especially to the medical treatment of insanity. The author's object is to excite a more general interest in the study and observation of mental disease, by describing its premonitory and earliest symptoms, which are so generally unrecognized, or passed over as of little account. To this end he has pointed out the great variety of morbid symptoms which are found in the intelligence, perception, feelings, instincts, special senses and sensation, and made them more impressive by means of cases forcibly and

* Vol. XVII., No. II.

vividly described. Thus the work is almost as much a popular as a professional one, and fitted to produce a good effect among a large class of the reading public.

But the profession has a right to expect something more formally scientific, and of more solid worth, from the pen of one so talented and of such ample experience as Dr. Winslow. Indeed, we cannot forget that the present work was first announced as merely the introduction to two more elaborate ones, dividing between them the whole field of cerebro-mental disorders. Is it not time that one of these, at least, was forthcoming? We hope that the great applause awarded to their fore-runner may not have filled the measure of Dr. Winslow's ambition for critical favor. To his solid and lasting fame as a writer, he has it in his power still to add; and we hope the profession will not be denied the ripe fruits of a life marked by extensive research and diligent observation.

The Principles of Surgery. By JAMES SYME, F. R. S. E., Surgeon in Ordinary to the Queen in Scotland, Professor of Clinical Surgery in the University at Edinburgh, Member of the General Medical Council, etc. * * * To which are appended his treatises on "The Diseases of the Rectum," "Stricture of the Urethra and Fistula in Perineo," "The Excision of Diseased Joints," and numerous additional contributions to the Pathology and Practice of Surgery. Edited by his former pupil, DONALD MACLEAN, M. D., L. R. C. S. E., Professor of the Institutes of Medicine, and Lecturer on Clinical Surgery, Queen's University, Canada. Philadelphia: J. B. Lippincott & Company. 1866.

From the high reputation of its author, the above volume must attract considerable attention. As indicated by the title, the scattered writings of Professor Syme have been collected by the Editor, and constitute

an important appendix to the original work. It is not intended to form a complete Treatise, or "to collect all that might be said in regard to each subject, but rather to collect what seems of most importance, and arrange it in a convenient order for teaching or study, so as to constitute a framework of surgical science which might be filled up through the gradual acquisition of professional knowledge."

We cannot, within present limits, give the work that thorough review which it merits, but must content ourselves with giving the reader merely a running account of its contents.

It is divided up into twenty-five chapters, and comprises all the surgical diseases affecting the different tissues of the body. The first six chapters discuss Inflammation and its processes, and may be considered in the light of a general introduction to what follows. We find, however, nothing to invite special consideration in these several chapters. The subject is well treated and conveniently arranged.

Chapter VII is devoted to the discussion of *Tumors*. The interest which attaches to these morbid growths warrants some allusion to our author's views. By Tumor, Prof. Syme understands, "an enlargement of a part of the body beyond its natural dimensions, which may be owing to the effusion or accumulation of fluids, as in hydrocele; the displacement of organs, as in hernia; or morbid growths, as in wens;" and under the latter heading (morbid growths) he includes: 1. Simple enlargements of the natural tissues, as exostosis. 2. The conversion of them into textures foreign to the healthy constitution of the body, such as cancer of the breast. 3. The development of entirely new formations, such

as fibrous tumors. After stating the different portions of the body affected by these different kinds of growth, and the three established modes of their treatment, he speaks of the uncertainty attending the microscopic examination of tumors in general. The views which he holds in this respect are so positive in their nature, and so unequivocally expressed, that we quote them in full :

Of late years, the microscopical investigation of morbid growths has been pursued with great assiduity, in expectation of its affording better characters for discrimination than those appreciable by simple inspection. But the hopes thus entertained have been very imperfectly realized, in consequence of the variations connected with diversity of texture ; and it must be confessed that little, if any, practical advantage has been obtained from this source—while the trust reposed in it, by withdrawing attention from the diagnostics presented by the sensible qualities, attendant circumstances, and histories of tumors, has in many cases led to the most serious mistakes. It is not impossible that the microscope may yet penetrate the obscurity which now renders its observations so uncertain ; and then the distinctive characters hitherto in use may be safely laid aside.

We are disposed to believe that Prof. Syme has not given the microscope its fair share of credit. While agreeing with him that a great many hopes have been raised in regard to the utility of this instrument which have not yet been realized, we are, nevertheless, convinced that its employment has thrown much light upon the subject. It should be borne in mind, however, that in common with most surgeons in extensive practice, the Professor has not found time and opportunity for microscopical research, and therefore his assertions have not the impress of authority.

Prof. Syme makes a general division of tumors into : 1st. Sarcomas, and 2d. Encysted growths. The Sarcomas are classified under the respective heads : Simple,

Adenoid, Adipose, Fibro-cartilaginous, Cystic, Carcinomatous, Medullary and Scrofulous. The peculiar characteristics of the different growths making up the second class, (the Encysted,) are designated by the nature of their contents, as Meliceritious, Atheromatous and Steatomatous. Although the remarks upon the different kinds of growth are eminently practical, and tend to give to the mind of the reader a clear idea as to their marked characteristics, they are hardly fitted to the requirements of the practitioner. The distinctions between the different varieties are lucid and truthful, but there are many omissions, purposely made no doubt, to divest the subject of that mystification which disheartens the beginner. In fine, the whole is designed as a mere outline for the student—a foundation for him to build upon at the outset of his labors in this important branch of pathology.

As would be inferred from the author's reflections upon the microscope, very little is said of the microscopical characters of the growths. His division of tumors is certainly simple and intelligible, and to one not practically conversant with the embarrassments which arise, the subject would seem to be one easily mastered. That this impression should not take too firm hold of the reader, the author, at the close of the chapter, points out the difficulties in the way, and this he does so forcibly and effectively as to rob the foregoing remarks of much of that practical value which otherwise they might be thought to possess.

In the succeeding chapter the diseases of Blood-vessels are taken up. In the treatment of the different varieties of aneurism ample evidence is adduced of the author's commitment in favor of the ligature as "the quickest, easiest, most certain, and least painful means

of remedy." A chapter on Injuries next follows, and then one on Amputations. The most interesting part of the latter is the description of the author's method of removal of the foot at the ankle joint, an operation which has been so successful of late on both sides of the Atlantic.

The chapter on Diseases of the Bones is comprehensive and interesting. The only point that may be referred to in the chapter on Joints is the old-fashioned plan of treatment recommended in the morbus coxarius, and as a consequence, disapproval of excision of the diseased parts, and non-advocacy of the method by extension.

Passing by several unimportant chapters, we arrive at chapter XVIII., the most interesting in the whole body of the work. In it, stricture of the urethra is treated of in the style of one practically and thoroughly conversant with the subject. In the treatment of this troublesome affection, catheterization is relied upon whenever practicable, and the use of the knife where milder means fail. The operation, by external excision, which bears the author's name, is strongly advocated. The remaining chapters on the Nose, Eye, Genital Organs, etc., are interesting, and will each repay a careful perusal.

The work on Principles, as a whole, does not disappoint the reader. By no means a complete treatise, it nevertheless possesses very many attractions for both student and practitioner. To the former, it is a guide to future studies; to the latter, it imparts many useful and practical hints derived from the experience of one of the most eminent of living surgeons.

While, however, the main body of the work may be justly regarded as incomplete, the Appendix amply atones for the deficiencies. This, to the practical surgeon, forms the attractive feature, and is itself worth the cost of the volume. The profession on this side of the Atlantic are under obligations to Dr. Maclean for his judicious forethought and good taste in thus preserving, in a permanent form, the most valuable of Professor Syme's writings. These consist of a monograph on "The Diseases of the Rectum," one on "Stricture of the Urethra," and one on "The Excision of Diseased Joints," besides which there are reports of a large number of interesting cases which afford foundation for valuable clinical observations.

The book is handsomely printed in large, clear type, on tinted paper, and the wood-cuts are excellent.

On Wakefulness: with an introductory Chapter on the Physiology of Sleep. By WILLIAM HAMMOND, M. D. Large 12 mo., pp. 93. J. B. Lippincott and Company. Philadelphia: 1866.

Dr. Hammond's essay ON SLEEP AND INSOMNIA, published in the *New York Medical Journal*, and noticed *in extenso* in our October issue, constitutes the basis of this interesting monograph. The original memoir has been materially enlarged and in some parts entirely rewritten, and, as the Preface informs us, "is now published at the suggestion of several friends, who were of the opinion that it was deserving of a more permanent form than that afforded by the pages of a periodical." The book is issued in a style highly creditable to the taste of the Publishers.

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S U M M A R Y .

THE MICHIGAN ASYLUMS FOR THE INSANE, AND DEAF, DUMB AND BLIND.—The following remarks were made by the Hon. E. G. Morton, in the Michigan House of Representatives, March 4th, 1865, on the Bill making an appropriation to complete the building for the asylum for the Insane, at Kalamazoo. As the gratifying result of this speech, and of the forcible arguments and recommendations of the Report of the Legislative Committee of the Senate and House, ninety thousand dollars were appropriated for the purpose mentioned in the Bill :

MR. CHAIRMAN: The Asylums in Michigan have more than ordinary claims to the favorable consideration of the Legislature. Their inmates, while living in the world, are shut out of it by calamity and misfortune. They are not noisy here in their importunities, like those who throng these Halls for money, lands and public property, in their eagerness for gain. The deaf do not hear, and are scarcely heard, for they live in a little world of their own. The dumb are mute. The blind do not see their way to this capital in the wilderness. The insane, with shattered minds, are too absorbed in their wild imaginations, startling fancies and horrid delusions, to seek or care for our aid and protection. No, sir, they have no interested lobbies here to present their claims, and God knows they should never need them. And yet they speak to us in language that moves the soul in their behalf, through Him who opened the eyes of the blind, caused the dumb to speak, and cast out evil spirits. And if the deaf, the dumb, and the blind challenge our sympathy and aid, and we all believe they do, the insane have even more pressing and peculiar claims upon us. If they are not deaf, the sweetest melody may be frightful discord to them, and the sound of a friendly voice may startle them with alarm. If they are not dumb, their speech is not the speech of

sanity. If they are not blind, they see not with a sane vision. The glorious sunlight of Heaven is often delusion to them, and the most pleasing sights may be to them alarming spectres.

Indeed, sir, the insane are deaf, and dumb and blind, while they hear, and speak and see—for reason is dethroned. The mind, the soul, the God-like and God-given monarch to direct and govern man in this world of life, is wrecked, and like wrecks on the great deep without chart, compass or rudder, is driven, now in frantic madness, as if by a furious tornado, and now mute and calm, while wrapt in visions and fancies as unreal as the whims of delirium.

Insanity, sir, deranges the mind as volcanic forces do the geological strata of the earth, into a confused mass of ruins ; and as the mind is more important than the body, so the calamity which impairs or destroys it, is greater than that which affects or destroys merely the sense of hearing and seeing, and the power of speech.

And now, while war and suffering are adding fearfully to the number of insane, as legislators we should prepare a home for their care and protection. This is peculiarly necessary in *their* case, if a cure is to be effected, as it is well known that restoration to reason—to real life and happiness—seldom occurs unless immediate relief is afforded. Their case then is the more pressing, and is of that peculiar nature which forbids delay, or a parsimony that can with more justice be applied in providing for many other State institutions.

And now, sir, a few words in regard to the Asylum for the Insane, its capacity, situation and wants ; and the duty of supervisors, or other local authorities, who have the insane at their disposal.

The Asylum at this time contains some 180 patients, which is some fifty more than its rated capacity ; and about twenty applications for admission are made every month. Such facts show us, at once, the necessity of enlarging the institution by the construction of the north wing, for which the appropriation is now asked, and which is absolutely necessary. Let this be completed, and the entire building will immediately be filled to its full capacity ; and even then we should be prepared to erect another addition or building for those who are hopelessly insane, as all the patients will be best cared for by so doing, while not only their interests, but the wants of the State will demand it. With the north wing completed, the building will be some 1,000 feet long. In view of its present magnitude, many persons imagine that it should afford accommodations for a larger number of patients. They do not understand that it is necessarily divided into wards,

eight for males, and eight for females, and thus classified for different degrees of insanity ; and that it is impossible, when a class is filled, to successfully treat a case which belongs to that class in another class or ward. A knowledge of this fact by persons applying for the admission of patients, would save the institution from much unjust and undeserved censure. The design is, in time, to make the Asylum a self-sustaining institution. This might be done now, if the indigent were excluded to make room for more wealthy applicants. But this would be against the humane policy of the State, as the wealthy have the means of access to other Asylums, while in our State Asylum the poor have the preference at about one-third the expense which applicants of means would cheerfully give for admission.

Again, sir, in regard to the policy of county authorities who have the care of the insane. In some counties they have retained them from the Asylum as long as possible, even when there was room for their reception, to prevent them from becoming a county charge, as they do become when placed in the Asylum. Now, what is the result? They are retained, in many cases, until they become hopelessly insane, and then, when there is little or no hope of recovery, they are sent to the Asylum to become a permanent charge upon their counties, when, had they been promptly provided for in the Asylum, a cure would have been almost certain, and the tax on the counties much less. It is, therefore, a short-sighted policy, even in a pecuniary point of view, to neglect the insane a moment after insanity commences ; and, to take no higher view of the subject, it will be short-sighted policy for this great State to withhold the necessary appropriation for enlarging the institution and its usefulness in the future. To vote it we shall save hundreds of the unfortunate to society, and the people from permanent taxation for their support. Wayne county, it is said, formerly pursued this policy, and retained her insane from the Asylum, much to her regret and detriment, as subsequent events demonstrated.

The history of asylums for the insane in this country, including our own at Kalamazoo, shows the encouraging fact that eighty to ninety out of every one hundred new cases may be successfully treated and cured, if promptly attended to, while only twenty to twenty-five in a hundred are cured after unreasonable delay, and seldom, if ever cured, after the cases become chronic. These facts should be known throughout the State, that our authorities may act

more intelligently and humanely in the future; and when known, the tax-payers of Michigan, instead of condemning us for making this appropriation, will condemn us if we withhold it.

There are periods in our lives when we meet duties which require higher views and motives than the consideration of the mere dollars and dimes they involve. The case before us is of this character. Justice and humanity require us to meet it like men. It is our duty to sustain liberally all of our humane institutions, and more especially the Asylum for the Insane. It is a State institution. It belongs to the people. As legislators we should watch and guard this Asylum and inmates, as a father cares for his home and family. To do so is to discharge a duty to our common humanity. An appropriation to sustain it is an appropriation to Almighty God. It is laying up treasures in Heaven.

CONJUNCTIVITIS IN MANIA.—M. Berthier states that he has observed in cases of mania a form of conjunctivitis not noticed by writers on insanity. At first there is a redness of the eyes resembling that in persons who have slept little or wept much; and this, usually accompanied by moisture or lachrymation, in the end becomes a true erythema, which invades the entire conjunctiva at the time of the paroxysm, and disappears when this subsides. If these paroxysms are frequently renewed the phlogosis gains deeper hold, and gives rise to blepharitis, epithelial dryness, pulverulence of the ciliary edge, and falling of the eyelashes. This affection exhibits the peculiarity of resistance to all remedies, whatever these may be, still following the progress of the paroxysm and yielding only with it. Generally speaking, it does not go beyond the stage of superficial vascularity. Since his attention has been called to it, M. Berthier has verified this affection in forty cases of chronic insanity in both sexes, most of these being examples of pure intermittent mania, and a few of melancholia with intercurrent excitement. He has never seen it in calm, continuous insanity. He, therefore, regards this as a form of ophthalmia peculiar to insanity, and dependent upon a specific congestion, and he thinks that the knowledge of its existence may be of use in deciding upon cases of supposed simulated mania.—*Gaz. des Hôp.*

PTYALISM OF THE INSANE.—M. Berthier, of the Bourg Asylum, concludes a memoir upon this subject in these terms:—Chronic ptyalism of the insane depends; (1). Upon atony of the *primæ viæ*, and this should be combated by a substantial regimen; (2). Hallucinatory sensations, requiring moral agents in their treatment; and (3). Excessive general excitement, for which the sedatives and antispasmodics suitable to the mania are indicated. Of all these the last is the most obstinate, because it is inherent in the principal disease. The two first are easily treated, with the aid of time.—*Gaz. des Hôp.*

A SUGGESTION.—In view of the peculiar affliction which has visited the honored head of the Government Hospital for the Insane, at Washington, since the last meeting of the Association of Superintendents, we would suggest to the officers of this body the propriety of changing the place of meeting in April, from the National Capital, to Baltimore or Philadelphia.

AMERICAN JOURNAL OF INSANITY, FOR APRIL, 1866.

THE LABOR QUESTION, AND HOSPITALS FOR INCURABLES.*

BY DR. I. RAY.

The general principles of management, [of the insane,] as well as the particular ways in which they have been carried out, have been too often described in these reports, and too carefully observed by yourselves, to require any special notice now. I would only say that the experience of every year has confirmed my belief in their essential correctness; and though I have sought for little more than that kind of improvement which ought to follow a considerable use and custom, yet I cannot charge myself with having failed, in any considerable degree, to profit by the suggestions of others. Some things respecting the insane and institutions for the insane, I consider as established. A half century of trial and observation has not been entirely barren of well-settled results. It has been one of the felicities of my lot that, during my eighteen years of service here, no scheme of management, no plan or experiment for accomplishing this or that object, has been urged upon me, or even hinted at, by those who had the power or right so to do. Being perfectly free to choose, to admit or reject, to try or leave untried, whatever promised any

* From Dr. Ray's Report, for 1865, to the Corporation of the Butler Hospital for the Insane, Providence, R. I.

good to the cause, I have thus been able to arrive at results respecting them, unbiassed, certainly, by fear or favor. Independent action and free inquiry do not necessarily secure one from mistake, but it is equally true, that, without them, mistakes or something worse will frequently occur.

Methods of medication, methods of management, methods of support, have always been fruitful subjects of speculation and experiment, and many a man has flattered himself that he has triumphantly overcome some practical difficulty, given a death-blow to some time-honored custom, or discovered some royal road to the great end and aim of his undertaking. Here, as everywhere else, great novelties have sometimes been mistaken for great truths; and the cold, sceptical inquirer, unwilling to let go too readily an old conclusion merely because a new one claims its place, is regarded as slow and behind the times. Of course there can be no fear that the truth will not finally prevail, but it is desirable that it should prevail speedily, and that error, when once fairly killed, should stay killed, instead of rising up like a troubled ghost, from time to time, and declaring that it is not killed, justly. In the mean time, persistent experiment and patient investigation will have to continue their work which, though slow, will surely end in good results. Those incidents of management which spring from the habitual endeavor to improve, I have not regarded as always fit subjects for public notice, but to one of them, for a special reason, I would solicit your attention now.

The value of labor, both as a remedial and a financial measure, in the care of the insane, has been so strongly insisted on of late as to have become a controlling element in the solution of a most difficult practical question.

Though the general principle has been recognized, and applied more or less in all modern establishments, yet it is earnestly contended that it has never been developed to its fullest extent. With no idea of proving a theory, but solely for the purpose of making the most of a good thing, I have endeavored, by means of extra attendance, to extend the use of labor, for a year or two past, and though the result can scarcely be compared with that exhibited by some other institutions, yet it is none the less valuable as a fact in connection with the general question. In a hospital like this, receiving all sorts and conditions of men, from the town-pauper to the millionaire, many of them unaccustomed to labor, and many more whose mental affection is coupled with serious bodily ailments, such as epilepsy, paralysis, extreme depression of the vital powers, not much labor could be reasonably expected. A steady systematic management, however, which puts every one to work who is able and willing, and keeps them employed for the longest period compatible with their own welfare, may, even under such circumstances, lead to significant results. The institution has always embraced among its inmates a small number who, under the care of the farmer and gardener, go out regularly to labor on the land. Their working day, at the longest, never exceeds eight hours. In the winter, of course, out-of-door work is often prevented altogether, though, at such times, a little employment is usually found under cover. These persons, for the most part, are incurable, but have the strength and disposition to engage in the coarser labors of husbandry, and require comparatively little oversight. They have averaged, one year with another, about one-fifth of the whole number of male patients. In every hospital there are also some

who might possibly work, but who, for one reason or another, do not join the regular working party. Some have hardly strength enough to remain out so long; some are so sluggish and abstracted as to require incessant direction and encouragement; some are unduly excited by the scenes of out-door labor when protracted beyond a very limited period; some are so determined on eloping that they cannot be trusted without unusual precautions. For the purpose of giving all such an opportunity to work, we have had, the last two years, one or two extra attendants who have been employed chiefly in working with them out of doors. The weather, of course, would keep this class of patients within in a greater degree than it would the former; and, at all times, their labor would be less remunerative. Besides these, there are always some who prefer to work within doors, and they are employed, some more and some less, steadily, in the ordinary domestic work. The labor, of whatever kind, is always voluntary, but in cases where the welfare of the patient strongly required it, we have used all our powers of persuasion, when necessary, to overcome that inertness which is so characteristic of a large proportion of the insane. An accurate account has been kept of all the time thus spent since the first of April, 1864, and here is the result. During those one and twenty months, forty-two different male patients have been employed in labor, amounting to about three-sevenths of the whole number under care, and to about four-sevenths of such as had ever been accustomed to manual labor. The time thus occupied amounts, in the aggregate, to 6382 working days.

On the female side of the house, no account has been kept of the labor, but it has been comparatively small.

A large number have never learned to knit or sew ; and the domestic work connected with the rooms and halls they occupy—for it has not been the custom to employ them at all, in the centre-house—can furnish little occupation for so many persons. Unfortunately, there is no kind of labor so well adapted to the taste, habits, and capacity, of females, as farm-labor is to those of the other sex. In large institutions, a sufficient number can be found, capable, with some kind of steadiness, to perform the labor of the kitchen and laundry. But in so small an establishment as this, such service, objectionable at best, is not sufficiently reliable to be used at all. It must be considered, however, that many female patients, especially those from the more affluent classes, engage in the usual feminine occupations for the benefit of themselves or their families, so that, in fact, the time spent in useful employment is not so much less, on the female side, as might, at first sight, be supposed, from the little there is to show for it.

This statement of the results of our use of our labor possesses an interest over and above that derived from the immediate effect, because it bears upon a question now much agitated, both in this country and abroad. You are aware that in the early stage of this benevolent enterprise of establishing hospitals for the insane, one of the principal objects proposed by it was the proper care and custody of the old incurable cases. It was their sufferings as exhibited in the jails and poor-houses of the country, which, some five and thirty years ago, led Horace Mann and a few others to begin that movement, the first fruits of which were the hospital at Worcester. They labored, as they supposed, for the poor, the neglected, the friendless, the hopeless, not for the wealthy

and curable, who might be safely left to the ministry of their friends. For a time it seemed as if the precise object of their labors had been accomplished and placed beyond the reach of any change of fortune. The jails and poor-houses were emptied of these unfortunates, and an incalculable amount of relief from the last extremity of human wretchedness was effected. A more curious change of purpose has seldom been witnessed than that which has been induced on this subject by the very development of the original enterprise itself. For whereas the object at first was to place all these persons in the hospitals, the question that agitates the philanthropists of our day is, how best to get them out of the hospital. In the course of a few years, the hospital came to be generally regarded as the only suitable instrumentality in the care and treatment of the insane, and consequently, their capacity of accommodation was reached long before the wants of the community were supplied. And thus we have this remarkable inconsistency,—that while hospitals are regarded by the sensible and benevolent as the most suitable place for the insane, and their claims on the public bounty recognized by regular legislative appropriations, there is not a community among us that thus provides for even one-half of its insane, unless it may be Massachusetts. In this condition of things, the conclusion has been generally adopted, that if any are to be excluded from the hospital for lack of room, it should be those to whom it would be a permanent home rather than those for whom a few months' residence would lead to recovery or considerable improvement. The almost universal practice of our State hospitals is, therefore, to discharge their patients after they have clearly become incurable, in order to make room

for those recently attacked. The patients thus discharged, after exhausting, perhaps, the patience and the bounty of their friends, arrive, sooner or later, at a final home in the poor-house or jail, and thus steadily increase that mass of suffering humanity whose dimensions seem to defy all the resources of public benevolence. To furnish hospital accommodation for all is what no community here, or abroad, has yet done, and it is less likely than ever to be done in this country while staggering under the burdens which the great national contest has heaped upon us. Are they then to be left to a kind of custody and care which deprives them of many a comfort, and inflicts upon them many a suffering, without the slightest attempt to better their condition? This is the question which is now beginning to be considered as scarcely second in importance to that which found its practical solution in the first establishment of hospitals for the helpless insane.

As one method of solving this question, it has been proposed to provide for the incurable insane, in a class of establishments more cheaply built and more cheaply managed than the hospital proper. For the idea is, that the mere custody of the insane, even supposing it to be humane and judicious, requires a much smaller outlay than that which is subsidiary to the higher object of recovery and restoration. The idea is specious and not without some foundation. The outlay for drugs and medicines must, certainly, be less; riding, driving, and long walks abroad, pictures, billiard-tables and bowling alleys, may be dispensed with, but the saving thus made will be but a small percentage of the whole cost. On a close examination, it will appear, I think, that the difference which can be made in the expense of the instrumentalities for obtaining the

two different objects—the cure, and proper custody of the insane—is but trifling. The essential requisites must be the same in both. To maintain the proper degree of cleanliness, both of the patients and of the house, must cost about alike in both, and the same may be said of the warming and ventilation. The highest hygienic condition of the patients will admit of no difference in these important points, and the public sentiment would not, and should not, tolerate any. A proper regard for safety and good order would forbid much, if any, reduction in the amount of attendance, which is already too low in most of our State hospitals, if we regard the rule on this subject put forth, a few years since, by the ASSOCIATION OF SUPERINTENDENTS. Officers, intelligent, discreet and skilful, would be no less requisite, to understand and meet the varying humors of the disordered mind, to give an elevated tone to the service, and thus prevent improper practices and a general style of management not conducive to the highest welfare of the patient. The buildings could not be much less costly than those now in use, in which many an important consideration has been sacrificed to economy, and the ultimate cost less thought of than the present.

The force of these objections must have been felt, in some degree, at least, for in all the plans for separate establishments, recently proposed, it is designed to make the labor of the patients defray, wholly or partly, the cost of their support. This idea of making the patients support themselves by their labor, is not, however, a new one. As disease of the mind does not necessarily impair the bodily health, the belief has been readily entertained that the insane can and ought to work, very nearly, if not quite, as long and as hard as the sane.

The fact here stated is beyond a question, but the fallacy of the reasoning consists in regarding a few instances as proof of a general truth; for it is also a fact that, for the most part, the bodily condition of the insane is much below the normal standard. Taking all the circumstances into the account, it will be found, I apprehend, that their labor cannot be so remunerative as is here supposed.

In the first place, insanity is accompanied by physical enervation in some form or other. Mental excitement may mask it for a season, and even deceive one with the look of unusual vigor, but, sooner or later, it will be obvious enough to the practised eye. Now, setting aside the epileptic and the paralytic—and they constitute a large portion of the incurably insane—who are incapacitated for anything deserving the name of labor, we shall find many other conditions, bodily and mental, having a similar effect, though in a less degree. There are some whose physical condition is marked by decay and debility. All the spring and elasticity of the vital powers have departed, and they have neither the heart nor the power to work to any purpose. Some are in the last stage of dementia, signalized by loss of memory, of discretion, of knowledge, and of the power of attention. Tools may be placed in their hands, and they may, for a moment, under the close supervision of an attendant, go through certain forms of labor, but they accomplish little or nothing. Again, many of those who do the most, at times, are liable to seasons of excitement, which, for days or weeks together, may deprive them of all power of application. The man who is calm to-day, carefully and thoughtfully pursuing his task, may be restless, if not noisy and boisterous, to-morrow, ready to work, per-

haps, but spoiling whatever he touches. And thus it is that the number of those who get out to their work, and pursue it efficiently, day after day, must necessarily be not a very large proportion of the whole.

In connection with the financial result, it is also to be considered that the labor of the insane is performed under disadvantages that seriously affect its profits. Very many are capable of only the simplest kind of labor, and as this is agricultural, for the most part, it is almost entirely interrupted during the winter. Like all simple labor, too, it is the least remunerative. True, some crafts are usually represented among the patients, but to pursue them profitably amid the circumstances of a hospital, is clearly impossible. Here and there a patient not much diseased, and, by nature, somewhat independent of circumstances, will, in spite of all difficulties, accomplish something worth having, in his particular calling. With a few tools, one will do good service by making over mattresses; another, by repairing shoes; another, by making clothing; another, by mending the furniture. All these things are serviceable to the institution, and so far help to pay its way, but to an extent scarcely perceptible in the annual aggregate of expenses. To be profitable, skilled labor must be pursued in suitable shops furnished with all the requisite tools, and aided by every advantage which the progress of improvement has procured. The kind of work must be exactly adapted to the wants of the market, and the easiest and freest intercourse must exist between employers and employed. It being impossible, therefore, for every patient to work at his own special craft, the practice is, where skilled labor is used, to select but a few crafts on which to employ the patients, the greater

part of whom must necessarily be learners in the art to which they are put. This implies an instructor whose wages will absorb a large share of the earnings, and it also implies, to some extent, the spoiling of materials and the breaking of tools.

It must be considered that such a kind of labor lacks that stimulus which proceeds from personal responsibility and a pecuniary interest. This alone may make all the difference between a gaining and a losing operation. When a man does precisely what he is told to do,—no more and no less—with no care for the future, and no interest in the result, working, in fact, like a mere automaton, he obtains a return for his labors, very different from that obtained by him who perfectly understands what he is about, and is actuated by the hope of gain, or some other desirable end beyond that of mere occupation. This defect constitutes one of the great drawbacks on the efficiency of the labor of the insane, and no device of ingenuity can prevent it. In some degree the difficulty is met, in England, by giving beer and tobacco; and though this measure may procure a greater amount of work, yet it is but an indifferent substitute for the activity, intelligence and hope of a sane mind.

The force of these considerations has been abundantly shown, I think, by actual experiment in the present institutions. Nearly thirty years ago, Dr. Woodward prepared a work-shop in the Worcester hospital for shoe-making, regarding that craft as more likely than any other to be remunerative, and though the account showed a small profit, it was quite too small to be regarded as a financial success. About the same time, Dr. Bell, of the McLean Asylum, provided similar arrangements for making candle-boxes, with much the same result. Two

or three years ago, Dr. Prince, of the Northampton hospital, desirous of giving the experiment the fairest possible trial, pitched upon basket-making as that which furnished, in the highest degree, the elements of success. The materials were cheap, the tools few and simple, the art was easily learned, and required but little strain on either the mental or bodily powers. Even under these favorable circumstances, the result was no better. "Pecuniarily," says the Report, "it was a total failure. There was no money made, but there was not much lost." There were other consequences of this experiment—a fair specimen, no doubt, of what may be reasonably expected from the employment of the insane in skilled labor—that ought not to be left out of the account. An overseer was discharged for abusing a patient, one patient eloped, and one threatened another with a knife.

It is supposed, I know, that hospitals for incurables, in which employment of the patients shall be made a ruling purpose, will possess great advantages over establishments designed for all classes of patients. In the latter, the predominant object is the recovery of the disordered mind; and in promoting this object, the time and attention of the officers are too much occupied to allow them to superintend workshops and look after the minute details of special employments. The argument is specious, but will not bear examination. Labor is universally recognized as an indispensable means for promoting recovery, and is actually used, more or less, in the present institutions; and not merely for this purpose, but for that of furnishing occupation to the incurables. The system has only to be extended, as it easily may, to embrace within its operation every suitable patient. It is the proper selection of the crafts, the aid of judicious

overseers, facilities for working, and the governing spirit, that determine the financial result, rather than the number of persons employed. I see no reason to believe that these conditions are more likely to be found in hospitals devoted exclusively to incurables, than in those not restricted to any particular phase of the disease. On the contrary, the recent cases belonging to the latter, will render the labor so much the more remunerative, because of their superior intelligence and docility.

Another reason offered for the establishment of hospitals for the incurable insane, in which labor is to be the controlling element, viz., that they may be put into the charge of fresh men uncommitted by previous experience to any set of notions on this subject, and chosen for the purpose of carrying into execution a new principle, seems to present but a small foundation for so much promise. The experiments just referred to were tried by men who had every motive for exercising the same intelligence, tact and perseverance which they evinced in every other department of their calling. Better men than these could hardly be expected. On the other hand, I can conceive that if a man is entrusted with the charge of a hospital for the insane, for the express purpose of obtaining the utmost amount of labor from the patients, and that his continuance in office will depend on the result of his endeavors, he may be led into practices inconsistent with those sentiments of humanity and gentleness which should preside over the management of the insane. Patients might be sent out to work, who, by reason either of a low physical condition, or of great nervous susceptibility, had better be allowed to rest; while the sluggish or indolent, who never voluntarily engage in work, might be supposed to require

incentives somewhat stronger than moral suasion. These things would not happen in every instance, probably, but it would be strange if they should not occasionally happen.

The economical results of labor performed under circumstances somewhat similar, have been well exhibited in our State penitentiaries, with which, in this respect, our hospitals for the insane may be very properly compared. It appears that in the State penitentiary of Massachusetts at Charlestown, the proceeds of labor, during the last six years, have not defrayed the expenses of the establishment. In every thing likely to affect the result, except, perhaps, the cost of attendance, the penitentiary has the advantage over the hospital; for the working-day is longer, and is uninterrupted by weather, the labor requires more or less skill, no workers are exempted by moral and few by physical, disability, they are under the direction of contractors, whose interest is promoted by obtaining the greatest possible result, their diet is simple, the cost of sickness is little, and that of recreation, nothing. True, in some other States, the results of penitentiary labor, during the same period, were better,—the proceeds actually defraying the cost of maintenance. Still, they confirm the principle that to have labor remunerating in the highest degree, it must be voluntarily and cheerfully performed.

Perhaps, however, it is not expected that hospitals for the insane can be made self-supporting, even by the most judicious management, but only that their expenses may be so much reduced as to render the burden upon the taxpayers comparatively light. Now, the experiments above referred to, furnish, certainly, approximations to the best possible results, and so considered, may

be taken as a suitable standard of comparison. Showing as they do that the expenses of the hospital are not materially reduced by the labor of the patients, we are obliged to admit that the latter might be made even doubly valuable without much affecting the practical question at issue. It must be recollected, too, that half of the inmates are women, of whom the greater part who work at all are capable of only the coarsest forms of needle-work, which, even when performed by the sane under the pressure of extreme necessity, will scarcely procure the means of living in the humblest way.

I am inclined to think that the notion, so prevalent among us of late, that we have scarcely taken the first steps towards developing the capacity of the insane for labor, is founded, in a great degree, upon what is supposed to be the experience of the English hospitals. It is not strange that an American, after observing the results of labor there, should inquire why the same system, with the same results, is not practicable here. When he sees that apparently every patient, male and female, except the few prostrated by disease, is doing something, and beholds the piles of articles manufactured by them, he readily concludes that we have signally failed to develop an important element of material support. But before adopting this example as the rightful standard for us, it will be well to inquire if this difference may not be attributed to peculiar circumstances rather than any want of skill on our part. A careful examination of all the elements of the case would lead us, I think, to this conclusion, but the occasion will permit only the most cursory notice of the principal.

In the first place, we find in the English establishments a much smaller number of the physically infirm and dis-

eased. Secondly—as an effect of climate, probably—we find a much smaller amount of excitement, both of the paroxysmal kind and of those inferior grades which, while they do not deprive a patient of all self-control, render him too restless and fitful to labor to much purpose. But the principal source of this diversity is to be found in the very different social status of the patients. The habitual obedience to the powers that be, and the unceasing deference to superiors which is an all-pervading trait of the English in the humbler walks of life, do not desert them when they become insane; and, under the influence of these qualities, they are as ready to follow the rule of labor as any other rule. They are as little disposed to disregard the orders of the officers of the Asylum, as they would be to condemn the squire or the parson. And thus, though no compulsion may be used, the patient does as he is bid, without question or hesitation, as a matter of course. In our establishments it is all very different. The patient, though bred to work, is not slow to tell us that he did not come to the hospital to work; or that if he can be paid for his labor, he is willing to take hold, but not otherwise. The effect of this spirit is especially manifested in that class of patients who are too indolent and listless to work without some stronger provocative than the mere love of it can furnish. Many a patient who would be greatly improved by occupation, obstinately persists in moping about in utter indolence and vacuity; and in such cases we may well deplore the necessity of abstaining from the only effectual means for changing their disposition. In the matter of weather too, the English hospitals have a decided advantage over ours, for the purposes of labor. Neither the long winters of the North, nor the hot summers of the South, keep

their patients a considerable part of the time within doors; the comparatively equable temperature presenting conditions eminently favorable for out-side work. They also possess the advantage of having a larger proportion of artisans, and a smaller one of that nondescript class so abundant here, of helpless, shiftless beings, mere hangers on the skirts of society, who scarcely earned a living when sane. And yet, under all these favorable circumstances, in connection with a style of living that would hardly be deemed generous enough for even a hospital of incurables here, the English establishments are very far from being self-supporting. Indeed, the cost of maintenance is but little less than it was here before the war. So that, with all their show of labor, they furnish no encouragement to believe, that under the best auspices, our hospitals for incurables could be made self-sustaining. If any doubt on this point remain, it would be removed by the reports of the English hospitals which give the statistics of their labor. From these it appears that while a very large proportion of the patients are engaged on the farm or garden, in cleaning house, or picking oakum, a very small number only are engaged in skilled labor. The simple fact that the averaged cost of maintenance is, in many, above, and, in few, below, the average wages of the farm laborer, proves conclusively that the employments of the patients, salutary as they are, no doubt, and creditable as they certainly are to the officers, are not to be compared, in point of profit, to those of persons sound in mind and body.

Let it not be supposed, however, by these remarks, that I would oppose the separation of the incurables from the curables, considered strictly as a measure of classification. Intimate association with epileptics, para-

lytics, and the grossly demented, is disagreeable to most curable patients, and decidedly prejudicial to their welfare, but in establishments designed for 200 cases, which is not far from the proper capacity, such association cannot be entirely prevented by the usual means of classification. But if such a separation be made solely for economical purposes, I need only say, that this object will be, either completely defeated or obtained at the expense of humanity and propriety.

Another method of providing for the incurable insane, though of some antiquity in Europe, has not, till quite recently, been urged for general acceptance, either there or in America. Briefly indicated, it is that of placing the patients, by ones, twos or threes, in the houses of poor agricultural laborers, with whom they live, work and associate as members of a common family. From time immemorial, insane persons have been thus disposed of in Belgium, and, of late years, they have always been several hundreds in number. They are taken into their cottages by the peasantry, board, lodge, and work with their hosts, who receive a fixed price, and are responsible, as far as they can be, for the welfare of their charge. The price is low, in consequence, it would seem, of the fare being simple, and the work of the patients somewhat profitable. Apparently, but little restraint or seclusion is used, the more turbulent cases being disposed of, probably, in some other way. Some of the arrangements are regulated by law, and the Government exercises a little supervision.

This free-air system, as it is called, it is proposed to introduce here. It works well in Belgium, it is said, and why should it not here? Why should not the immense crowds of the incurably insane, perplexing as

they are to the philanthropist, and appalling to the taxpayer, be as humanely and cheaply maintained as it is alleged they are at Gheel? Without examining the matters of fact implied in these questions, for they are not entirely undisputed, we are inclined to believe that this method of disposing of the insane would be found impracticable in this country, in consequence of the very different circumstances under which it would have to be tried. For a thousand years or more, Gheel has been resorted to for the relief of insanity, by obtaining the intercession of a certain saint who was supposed to be deeply interested in the insane, and whose aid was invoked by prayers and ceremonies. For lack of other accommodation, the patients were necessarily entertained in the cottages of the peasantry, with whom they lived on familiar terms. A connection thus formed, became, in time, an established institution, improved and cherished by a long course of experience well calculated to create a traditionary knowledge of insanity and the insane, and an active interest in their concerns. In receiving the insane into his family, the peasant did just what his fathers, for many generations, had done before him. From early youth he had looked forward to this as a means of living. He knew what to expect, and was prepared for every emergency. His boarders were little disposed to leave him, because, to their dull and passive temper, their own home had no stronger attractions than his. Their fare was simple, embracing nothing which they had not raised themselves on their own ground, and thus a very moderate charge would cover the excess of their cost over the returns of their labor. Here, on the contrary, a community of some hundred families has got to be created under very peculiar circum-

stances. They must live near one another; they must be engaged chiefly in agricultural employments; they must be content with a small property and with no ambition to make it larger, while the habits of our time would require a dietary which, to a Belgian peasant, sane or insane, would seem to be the height of luxury. Who, with the slightest knowledge of the ways and habits, the feelings and expectations of our people, can suppose that the formation of such a community would be practicable anywhere in this country? Even if the cottages were built and occupied by tenants ready to receive the patients, still, an essential element of success would be wanting. There would be no knowledge of insanity as a disease, no skill or tact in management, no forecast and anticipation of contingencies, for these come only from long, familiar intercourse with the insane. What other result could be expected but timidity, awkwardness, harsh, if not inhuman, practices? True, this knowledge and skill might be learned in time, but what would become of the experiment in the mean while? The public will be scarcely willing, in the face of constant failure, to wait two or three generations before it relinquishes all faith in the undertaking. Elopements, too, would be numerous under the most careful management, so numerous, if we do not utterly mistake the character and ways of the insane, as to defeat the very object itself. The cottage of the farmer presents no attraction stronger than that which the patient is in the habit of regarding as his own. One has schemes of business which require his presence somewhere else. Another is quite sure that if he is to work at all, he had better work for himself. Another is impelled by that roaming propensity so common with the

insane; and thus, for one reason or another, most of them are bent on leaving the place of their detention. Even at Gheel, some years ago, an observer spoke of seeing some going about in chains, to prevent them from eloping. Such restraint is said to be no longer used, but I am not aware what substitute has been adopted.

Happily, we are not left altogether without witness respecting the operation of this system, under circumstances not essentially different, in this country. In a greater or less degree, it has always prevailed in New-England, and perhaps in other States. The poor-house of the town is usually provided with land, the cultivation of which, by the inmates, helps to defray the expenses, and in winter some form of in-door employment is furnished. The insane paupers, when able and willing, are put to work with the others, and it is for the keeper's interest, in some way or other, to surmount their objections. But in fact not much work is accomplished; and, worse than that, to prevent those from leaving the premises who are disposed to roam, they are chained to the floor, or shut up in narrow rooms, and this leads to filth and cruelty. And yet the keepers of the poor-houses belong to the same class of men as those who would be likely to be employed in the free-air system. In both this and the poor-house system, there would exist the same motives for kindness, and there would be an equal chance for intelligent and skilful management. In these respects, indeed, the advantage would seem to be on the side of the poor-house keeper, for his character may be well-known to the appointing power, and the perquisites of the place would ensure a better class of applicants. The fact that a selection thus made is sometimes followed by the best results, is but a poor argument in favor of

the free-air system. That more care and vigilance would secure a still larger proportion of the right kind of men is not enough. The success of the new system requires that, with an occasional exception, perhaps, all the care-takers should be kind, gentle yet firm, watchful and judicious. A sounder argument is, that if the poor-house management, with all its better opportunities, so often fails, a still worse result would follow under a system essentially like it, but less fortunately circumstanced.

It is admitted, I believe, that, even under the most favorable circumstances, a considerable part of the incurable insane must still be provided for in hospitals expressly designed for the insane, their form of disease requiring such restraint as can be judiciously applied only in such institutions. But it is not generally understood how few comparatively would be left for the open air system, after those are withdrawn who are infirm, or homicidal, or suicidal, or bent on elopement, or subject to paroxysms of violence. It is alleged, I know, that the number of such would be much reduced under the operation of this system. That an occasional instance of improvement might be witnessed by the change from the extreme of confinement to the extreme of freedom, would be in accordance with our experience of the effects of change upon the insane. But with that exception, the prominent traits of the disease, inasmuch as they are mostly produced independent of any accidents of management, would not be so easily removed. If, then, the substitutes hitherto offered for the present establishments are either impracticable or equally expensive, there remains the only alternative, either to wait in the vague hope that some feasible plan may be devised, in one way or other, for meeting the present difficulty, or to provide for

the care of the insane in hospitals furnished with all the appliances for promoting their comfort, which have been created in the progress of improvement.

Thus far, it will be observed, I have treated it as a foregone conclusion, that hospital accommodation for all the incurably insane is what our people cannot or will not furnish; but, after all, I am not sure that it would be so far beyond their means as to be utterly impracticable. It is with communities as it is with individuals,—what they ardently desire, and feel the need of by practical experience of its want, that they generally contrive to have. I have had abundant opportunity to observe the operation of this principle in our own State, since the opening of this institution. Towns which long delayed to send us their pauper insane, have become the least willing to keep them at home. Having got fairly relieved of the responsibility of caring for their troublesome wards, they have come to consider it a hardship to be obliged to resume it. Feeling so keenly as we have the necessity of more room for recent cases, we have often signified our wish to be relieved of certain incurables, but, very seldom has the request been complied with. I am inclined to think that were we able to receive every case as fast as offered, every insane pauper in the State would be under our roof, within a dozen years, excepting, perhaps, the few who are well enough wherever they are kindly treated, and those of Providence and Newport, which possess unusual facilities for taking care of their pauper insane. And the statistics of the case furnish unquestionable proof that the burden would not be very heavy. In 1850, Mr. Thomas R. Hazard, under the direction of the General Assembly, visited every town in the State, in order to ascertain the num-

ber of their insane, and found 143 supported at the public expense. Supposing the pauper insane to have increased in the same proportion as the population, we now have about 180. Of this number, perhaps, 40, by reason of some bodily infirmity or of a quiet, harmless disposition, would be rendered as comfortable in the poor-house as any where else. To maintain the rest in a hospital for the insane would cost, at present prices, about \$29,000, or some \$16,000 more perhaps than they cost at the poor-house. This would be equal to $8\frac{1}{2}$ cents per head of the whole population, and to between seven and eight mills in the \$100 of the valuation of the State. It cannot be fairly said that this would be a very heavy burden, and we may well doubt, if, for such a purpose, and under circumstances of so much material prosperity, it can be justly avoided. Until therefore, it appears that the maintenance of all the incurably insane in regular hospitals is clearly beyond the means of our people—to be achieved, in short, at the expense of some greater interest—we have no right to feel that the line of our duty to these unfortunates lies only in providing for them by some inexpensive method, when it shall be discovered.

VAN DER KOLK'S PATHOLOGY AND THERAPEUTICS OF INSANITY.*

TRANSLATED BY J. WORKMAN, M. D.

GENERAL PATHOLOGY OF THE BRAIN.

Before proceeding to the Therapeutics of Insanity,† I deem it proper to offer some general remarks on the nature of the Brain, and its pathological transformations.

The various parts of the body are distinguished from each other by their texture and functions, and these differences so manifest themselves in disease as not to permit the physician to overlook them. Many parts are signalized not merely by their rich vascularity, but also by their high excitability, and in consequence they are susceptible of severe inflammatory disorder from only trivial disturbing agencies,—as, for example, the lungs. It is indeed the fact, that the stomach though rich in both blood vessels and nerves, yet tolerates without apparent result injurious impressions which would, in other parts, induce severe inflammation; it remains uninjured by hot spices and other substances. The peritoneum, on the contrary, though only sparingly supplied with

* DIE PATHOLOGIE UND THERAPIE DER GEISTESKRANKHEITEN AUF ANATOMISCH-PHYSIOLOGISCHER GRUNDLAGE: VON J. L. C. SCHROEDER VAN DER KOLK, Professor der Physiologie an der Universität Utrecht. Braunschweig, Druck und verlag von Friedrich Vieweg und Sohn, 1863.

† Dr. Workman's Translation of the Therapeutics of Insanity—constituting the second part of van der Kolk's work, is contained in the JOURNAL for April and July, 1864.

nerves and blood vessels, may rapidly become inflamed even from atmospheric exposure.

The brain, with all its high importance, occupies, in this relation no elevated position; an inflammatory condition is seldom induced in it by trivial excitations. Severe acute cerebral inflammations are indeed met with, especially amongst children, whose organism is preëminently excitable; and in later age we find a much greater tendency to them in males than in females, as well as a more general tendency in the former to structural degeneration. It is however astonishing, to what an extent the brain may be stimulated and excited, but especially in women, without the induction of inflammation; and even when at length it does occur, it usually attacks first the membranes, and takes a chronic course. In the brain substance itself, primary inflammation rarely occurs; and when it does occur it is generally only local.

In the insane we more generally find diseased conditions of the membranes with morbid changes in the cortical layers, than in the brain substance itself. In the latter the most usual results observed are softening or hardening, consequent on long continued disease. From this circumstance it has happened that some persons disappointed in their autopsical researches, and concluding that the trivial deviations from the normal condition, discovered by them in the brain, could not have necessitated the extraordinary mental manifestations observed during life, have been led to the belief that insanity is a purely psychical affection.

The pathological anatomy of the brain has yet farther tended to the establishment of doubt, from the fact that in the dead body we sometimes meet with distinct textural degenerations, or purulent collections, though dur-

ing life the individuals did not show the slightest symptom of ailment. As inflammation of the brain substance mostly remains circumscribed, there results not from it any insane manifestation. When however this result ensues the inflammation must have extended to the pia mater, or to the anterior and superior cerebral lobes. We are aware that portions of the brain may even be lost, and the patient may, notwithstanding, without any impairment of mental power, completely recover, provided the injury does not provoke meningeal inflammation, which may extend over the brain, and also that the cortical substance of the anterior and upper portions remain sound and in functional integrity.

With a view to illustration of this principle, I shall here detail some observations which I have noted. A carpenter was struck on the head by a heavy beam of timber, and he fell down senseless. On examination a manifest depression and a fissure were found on the crown of the head. The symptoms of cerebral compression, after sometime, indicated the necessity of trephining; and after the operation a small quantity of pus escaped. The patient became conscious, and felt his head easy. Before the operation coma was present, but after it there was no delirium. The patient described his own feelings during the operation as that of hearing a powerful alarm. He found himself instantly quite well, and went about his daily work, without making any complaint whatever. Three months after the operation he dropped dead, at his work. On *post mortem* there was found under the right coronal suture, a pus sac, of about two centimetres deep, and two and a half broad, which reached to the right ventricle, but did not communicate with it. The walls of this sac were about five

millimetres in thickness, and consisted of long cells, and new areolar tissue. The ependyma was inflamed on the inner surface of the ventricle, probably in consequence of the enlargement and extension backward of the pus sac; and the inflammation in it had proceeded to suppuration, so that a thin looking, rather serous pus had passed through the third and into the fourth ventricle, where it probably caused sudden compression, and induced the fatal catastrophe. Not a trace of inflammation was seen on the upper surface of the brain; the cortical portion of the brain was quite sound, and the meninges were free from inflammation. This man, notwithstanding the important suppurative disorder, remained up to his death in full possession of his mental faculties.

Another interesting case came under my attention before the preceding, in a man of seventy-two years of age. He had, so far as he could remember, enjoyed until the present uninterrupted good health. Without any known cause he became affected with an unpleasant feeling, as if insects were creeping over him, and he had a numbness in the hand and foot of the left side, which was soon succeeded by complete paralysis of the left arm and leg, so that at the end of fourteen days all motion of them had ceased. But contractions in the flexor muscles of the paralyzed side soon set in, and these alternated with tremors and involuntary movements. At the end of four weeks he was unable to move or turn the head. The facial muscles, however, still retained their mobility and the pupils were not dilated. The disagreeable feeling in the limbs still remained. Sixteen days from the commencement of his trouble, the power of the sphincters was lost, though the motions took place with daily regu-

larity. *The appetite was good throughout.* The pulse accelerated and full, and sometimes quite hard. Decubitus soon set in, on the lame side. In the last days, a swelling and pain in the left arm, with excoriations at the elbow, were presented, and the whole arm became of a bluish hue, though the pulse had not changed. Derivatives on the neck, and the exhibition of Flores Arnicæ, produced no improvement. Still the patient, even to his last breath, was perfectly clear in his consciousness; *he had not the slightest pain in the head*, or sense of heaviness in it, or any unusual feeling; and his mental possession remained perfect. In reply to my questions, made with the view to elicit the facts, he assured me, two hours before his death, and six weeks from the commencement of his illness, that before this disease attacked him he never had suffered from headache, and that during its course he not once felt it, nor any noise in the ears. Whoever saw this old man with his well colored cheeks, and heard him speak with perfect mental soundness, could hardly have regarded him as laboring under any disease; he complained only of the pain in his left arm, and the loss of power in the left side.

The post mortem showed that the small intestine had wound itself in a singular manner, round the descending colon; the sigmoid flexure was contracted, and the part of the colon above was distended with air. The colon was pressed in between the liver and diaphragm, and it had made deep furrows on the upper surface of the liver; from which it was manifest that the distention of the gut must have been of long duration. *Yet the patient had not, at least during his six weeks illness, suffered from any sluggishness of the bowels.**

* This part of the case is deserving of our careful considera-

The heart and lungs were sound. I now laid open, on the front, as I have always been wont to do, the spinal canal; and in doing so, I found that all the vertebrae were grown together, by means of large ossific deposits. The sac of the dura mater was wide distended and filled with reddish serum. The cervical portion of the spinal cord showed increased firmness, especially on the front near the fourth vertebra; and at the same place the pia mater had a greyish colour, and adhered to the arachnoid by a pseudo-membrane. At various places in the arachnoid, cartilaginous, and even bony lamella were seen.

The dura mater of the brain had grown so fast to the skull, that the latter could not be separated from it, and the membrane had to be cut with a cruciform incision. On the right side, marks of a by-gone arachnoiditis appeared. On the anterior lobe of the right side, about one and one-half centimetres from the falciform process, where Foville's convolutions of the fourth order are found, there existed a manifest cerebral softening, with sharply circumscribed boundary. This softening, which affected an equal portion of the grey and the white substance, commenced in front above the orbit of the eye,

tion. The readers of the JOURNAL OF INSANITY will find that it fully bears out my observations in the preface to the translation of the therapeutic part of van der Kolk's book, published in the number for July, 1864, as well as those offered by me in a paper read before the Association of Medical Superintendents, at their annual meeting in New York, in May 1863, and published in the July number of that year, in the JOURNAL. We very clearly see, in this case, that notwithstanding the extraordinary condition of the colon, as well as of the small intestines, there existed no requirement for purgatives; and at the same time we can hardly fail to apprehend that the exhibition of them would have been productive of additional evil.—*Translator.*

and stretched as far as the gyrus parietalis anterior, and yet farther behind the process, to the gyrus parietalis medianus. Here it was about three centimetres in depth, and its greatest breadth, under the frontal bone, was two and one-half centimetres. In the whole extension of the disease, the pia mater was fast grown to the brain, and could not be separated without tearing; on the anterior lobes, indeed, the softened brain mass even down to the corpus striatum, clung to the pia mater, as may yet be seen in the preparation, in my collection.

In all other parts nothing abnormal was found, either in the brain or the pia mater, and the latter was quite easily separated from the brain. The left hemisphere was quite normal. Only the usual quantity of serum was found in the ventricles. Nothing abnormal was found in the corpora striata, the thalami, the fornix, the pons, or the cerebellum. The medulla oblongata seemed to be rather thickened. The grey substance, excepting at the pathologically transformed parts, showed no change of color. Hyperæmia was not observed in either the brain or spinal chord. It is evident from the facts, that we here have had a circumscribed softening and degeneration, which from a depth, by the side of the corpus striatum, from the so-called tenia semi-circularis, appears to have proceeded, until it reached the upper surface where it outspread and constituted a local and limited inflammation of the meninges.

In this case the greatest part of the anterior lobe, which I regard as the organ of the higher mental faculties, was degenerated and destroyed on the right side, and yet the patient had not suffered any mental disorder, nor, indeed, had he ever complained of any abnormal feeling in the head. At first sight this appears contra-

dictory to my views ; yet it is quite consonant with what I have previously said regarding the functions of the different parts of the brain. It has long been known that the hemispheres of the great brain are not sensitive, and that we may cut away a portion, without the patient's knowledge, even when he is in a state of perfect consciousness. This insensibility rests upon the circumstance, that the various perceptions and impressions which we acquire, proceed from cells of various sensuous energy, the functional action of which is aroused by external impressions, and subsequently is perceived by us. Since, therefore, the cells in the hemispheres in the brain surface are not capable of imparting to us perceptions or pains, (which is the supposed function of the perception cells at the base of the brain,) diseased conditions of the hemispheres themselves, may cause no pain ; in other words the hemispheres are insensible. The cells of the cortical layers react indeed to stimuli, which produce perceptions beyond themselves ; yet not as perceptions of pain, but in the form of conceptions or ideas, or of impulses, inclinations, or dispositions, according to the various locations of these cells. If there exists a merely local affection, as in the two preceding cases, and in which degeneration has taken place, then the degenerated parts certainly can no longer perform their normal function, or form for us any perceptions, which might find expression, in a stronger intensity of conceptions, ideas, or dreams. But from the rest of the brain mass no pathological symptoms may go forth, as it has not yet been affected, provided the meningitis does not extend farther over it.

We may certainly perceive, from these cases, that the brain possesses but trivial irritability, since such remark-

able local degenerations may be present, without affecting the surrounding parts. This, however, occurs only in adults. In a child, such a destruction would not have remained so entirely local, and general meningitis would decidedly have appeared.

The local lesion, in the second case, must have proceeded outwards from the deep part of the brain, until finally it seized the pia mater, and established in it an inflammatory condition, yet still merely quite local. The fact wears a different aspect, when the disease, as in cases of mania, proceeds from the brain surface, or from the pia mater itself. Then it spreads with more or less rapidity, over the entire surface, or at the least, over the greatest part of the hemispheres. The pia mater and the arachnoid participate in the general property of serous membranes, which leads to the extension over their whole surface, of inflammation originating in them. Whether mental disorder, in such cases, is presented or not, depends on whether the underlying brain layers share in the inflammatory process. This state of matters is not sufficiently considered by physicians.

A trivial congestive condition, or an incipient inflammation of the pia mater, may be limited on its outer surface, next the arachnoid; a plastic exudate is then formed beneath the arachnoid, which frequently under the appearance of a more or less speckled membrane covers the whole brain. This condition occurs often in the insane, and I was once of the opinion that it might be regarded as a distinguishing characteristic of insanity. Extended pathological research, however, soon convinced me, that the so-called speckled membrane, or whitish exudate between the pia mater and the arachnoid, is met

with also in persons free from insanity, and even in those who have never complained of headache. The same fact has been established also by Nasse, who refers to an interesting case, in which stricture was found in the small intestine, and a strong speckled membrane was outspread over the whole brain, though the patient up to the final loss of pulse, and the death-cold of the limbs, had not the slightest delirium, or impairment of consciousness. Nasse, therefore, virtually overthrows the ingenious but one-sided theory of Bayle, that insanity is invariably the result of meningitis.

More than 30 years ago I pointed out (*observationes anatomico-pathologicae*, 1826, p. 28,) that contiguous parts, possessing different textures are not readily thrown into inflammations of equal severity. In costal pleuritis, the intercostal muscles almost always remain unaffected, and in peritonitis the muscles of the abdomen are but seldom inflamed. The fact is similar as to the pia mater. Congestion, inflammation, or effusion, may limit itself on its outward surface, and leave the brain exempt, and we may find on examination after death an exudation enclosed between the pia mater and arachnoid, though during life not the slightest pathological cerebral symptom was observed.

I must in this place refer to the fact stated by me in a former part, (*circulation in the brain*, p. 53,) relative to the vessels of the pia mater,—that in the pia mater the arterial blood finds a direct passage from the arteries into the veins, without the invariable necessity of passing through the capillaries, so that an increased flow of blood, and even congestion, or light inflammation may occur in the membrane, without the vessels of the brain

surface participating in it—we may indeed say that the storm passes over us, without having been aware of it.

In consequence of the trivial irritability of the brain, inflammation extends itself in it tardily, and generally takes a chronic course since we observe that the muscular structure of the heart, despite of severe pericarditis and exudation into the pericardium, may remain sound, we are quite justifiable in the assumption, that in inflammation and organized exudation on the outer surface of the pia mater, the diseased process does not usually penetrate the brain surface; and as the hemispheres are insensible, an excitation of the brain surface, although it may lead to high mental disturbance, yet no headache may appear, and trivial affections will bring no particular pathological symptoms in their train, so long as the mind (Seele) still holds the rein; whenever this government is suspended, then we may believe the brain surface is strongly seized.

Nasse and others have, without any foundation, endeavored to exhibit the manifestations of meningitis as the primary causal agency of insanity, since meningitis with exudation may occur without cerebral symptoms. Every thing as to the extension of the inflammation depends on whether it becomes limited on the outer surface of the pia mater, or involves in the process the brain surface; in both cases the exudate between the pia mater and arachnoid is the same.

Local cerebral diseases occur not alone in the frontal and parietal regions, but also in the temporal, or the inferior lobe. I have frequently found at the point of this lobe collections of pus, when no cerebral symp-

toms or pain had been observed. But pain, indeed severe pain, is felt when the dura mater becomes involved in the inflammation. If the inflammation of the brain substance is altogether local, as for example when it occurs from stasis, or when, as in the case of the old man of 72, it proceeds from a deep part of the brain,—then symptoms of brain disease entirely fail. If the inflammation is circumscribed on the outer surface of the pia mater, then mental excitement and sleeplessness take place, or sometimes a feeling of lightness, or perhaps of heaviness and fulness; or perhaps the patient feels as if a foreign body was within the skull, moving hither and thither,—a feeling probably resulting from distension of the bloodvessels, or from the movements of the fluid between the arachnoid and pia mater. If the brain surface be more highly excited, then, in acute cases, delirium is present, and in chronic cases, mania or melancholia, with their accompaniments. But in insanity, and especially when of the idiopathic form, we seldom hear the patient complain of headache.

As, then, the hemispheres possess but trivial irritability, they are insensible in this sense, that disease in them does not make itself known by pain, so long as it operates not directly, or as yet but secondarily, on the deep parts of the brain, or does not outspread on the dura mater; but in this relation they exhibit a high degree of sensibility, and very severe symptoms may be called forth by trivial excitement, though no marks of inflammation, or but trivial ones, may be present. A tubercle, or a moderate sized blood effusion, may induce the most severe convulsions; excitations of the brain surface, or severe congestions, such as occur in delirium tremens, may provoke fierce maniacal outbursts; loss of

blood, however, an occurrence inducing a condition quite different from congestion, or inflammation, may have a similar result, as the relation of the blood to the cells and the parenchymatous fluid undergoes a change, by means of which the equilibrium of the cell contents and the surrounding fluids is disturbed, and at the same time the function of the cells.

The motor cells in the corpora striata appear readily to be thrown into this changed state, because in deadly hemorrhages, convulsions and loss of consciousness may be presented without maniacal outbursts. Unimportant idiopathic, or sympathetic causes, such as worms in children, or hysteria in girls, may provoke severe symptoms, whilst on the other hand very important morbid affections, such as local suppurations, may exist a long time without becoming known to us. But severe symptoms do not always justify the assumption of severe inflammation, which we are to meet with copious venesections and other antiphlogistic measures.

Though the brain is in so far sensible that a trivial excitation of it may evoke severe symptoms, still it does not belong to that class of organs, in which severe inflammation is speedily developed. In the morbid process of which we here treat, the inflammation is much more disposed to the chronic, than to the acute form, and therefore we must not have recourse to copious bleeding so precipitately as we often may in pleuritis or pneumonia.

The feeble action of the vascular system in brain diseases is to be ascribed to the fact that even when severe symptoms appear, yet no fever sets in. But should a strong encephalitis be developed, then we should have

marked indications both in the fever and the pulse, and the most active antiphlogistic measures might be necessary.

All pathological manifestations are dependent upon the nature of the parts affected; but the brain belongs to the organs of association, and has been deputed for the peculiar function of connecting body and mind (Seele;) and it is the organ through which the psychical energy proximately makes itself known. Pathological manifestations in connection with this organ and its function, are presented, the explanation of which is by no means easy, though they are generally well known; among them the first place may well be assigned to the condition termed unconsciousness, which is observed also, in sound health, but in all violent morbid incursions, and in numerous affections presents itself as a striking symptom.

During sleep we are but temporarily unconscious, that is, whilst we are not dreaming; during our dreams, the cells of the brain surface are in action. For the action of these cells, to the highest degree of the natural state, a perfectly undisturbed circulation, and a moderate pressure of the parts, appear to be requisite. When pressure on the brain exists, as in dementia, in consequence of cerebral effusion, by which the convolutions appear to have become flattened, consciousness does not totally disappear, though its actuality is reduced almost to nothing. The utterly demented almost resemble wax statues,—they speak not, they move not, and they stir not from the spot on which we may place them. The mind seems, in this condition, to receive but faint impressions.

Should more severe pressure, from rush of blood, or any other causes be produced, then coma results, out of which it is very difficult to rouse the spirit, which now has no cognizance of anything that happens.

In hysterical women we observe faintings from the most trivial causes. If spasm be present, the countenance is often pale, and the circulation seems to be curtailed, through the influence of the Sympathetic, which, as I have before shown, contracts the vessels, and thereby so modifies the circulation, that the necessary exchange of elements in the brain cells does not take place, and their delicate functional energy declines. The mind no more receives impression, since all conceptions, and also consciousness itself, exist through these cells.

If the cells are overloaded with blood, as in epilepsy, or apoplexy, then total unconsciousness takes place. The same result occurs when too much blood is withdrawn from them, in copious venesection or hemorrhages. If the circulation undergoes disturbance from the nervous system, the result will be the same. The cells of the brain surface undergo functional disturbance from the slightest causes, and even from the impressions made on them by every-day life, they become so exhausted, as to require the restorative influence of sleep,—a fact which can not be said to obtain, in the like manner, as to the organs of circulation, of respiration, of nutrition, and secretion. From these circumstances it is, a priori, conceivable, how, in local inflammation with subsequent softening, or suppuration in the brain surface, those cells should so suddenly lose their activity, and furnish no further symptoms, and that, in consequence, the mischief done may remain concealed

in the brain cells which no longer manifest their peculiar power or energy, no longer work on the mind. The mind (Seele) stands not in immediate union (verbindung) with the material itself, but with the power which, through the elementary vital operations, is developed in the cells.*

The various orders of cells, in this respect, deport themselves differently. The perception cells, for example, speedily cease to transmit impressions to the mind in sleep; but even in other very different occupations the mind experiences the same fact, and then its condition is similar to that of a person who no longer hears a clock striking its wonted chimes. The cells of the brain surface do not so rapidly lose their activity. Etherized persons do not feel any pain, though they hear their own involuntary scream; and they cease to see, although not totally unconscious. On the other hand, the activity of the motor cells is often powerfully augmented, when the cells of the brain surface have lost their activity. During the severe spasms of epilepsy, there is a cessation of consciousness; indeed an unconscious state is mostly associated with any sort of spasms. Involuntary motions may be associated with perfect consciousness, as sometimes happens in limited affections of the spinal cord, for example from the exhibition of strychnine; in such cases consciousness is not lost, at least not speedily, so long as respiration holds its course. When convulsions result from apoplectic effusions into the corpora striata, then unconsciousness sets in. In epilep-

* In order to understand this passage, it is necessary to state that Schroeder van der Kolk was a firm believer in the duality of power and matter (Kraft und stoff,) and in this respect was an adherent of Faraday.—*Translator.*

ties the convulsions seem to proceed from the medulla oblongata, and unconsciousness accompanies them, whilst the disease, acting upon the distribution of the Sympathetic within the cranium, and affecting the circulation of the head, lays hold of the whole brain; but unconsciousness is by no means, as many authors intimate, always the first symptom. I was quite recently consulted by an epileptic, who informed me, that at the outset of a fit he first became faint, and then fell down, but in so doing he often heard the fall, or his own voice, and after this unconsciousness took place; indeed he said he was often conscious of the first struggles with which the fit began. It is therefore apparent that consciousness is not at all (*gar nicht*) lost in the convulsive movements.*

In general the perception cells first lose their activity, and subsequently the cells of the brain surface lose theirs. Concurrently with these occurrences, the activity of the motor cells is augmented, and thus a reversed order of phenomena in their course of action, is manifested.

In the brain there is but little areolar tissue (*Bindigewebe*,) for what Bidder has here distinguished as such, I cannot so regard. The bloodvessels are indeed invested by a sort of areolar tissue, but on the minute capillaries it has not been with certainty demonstrated. The nerve tubes are in a manner lined together by an intercellular fluid, but it exists only in small quantity, and seems to contain considerable albumen; and on it depends the firm consistence of the brain. By preservation in alcohol or

* This is surely pushing theory beyond fact, at least in epilepsy; and certainly beyond the limits, which the case just cited by the author justifies.—*Translator*.

chromic acid. this intercellular fluid is rendered firm, as it coagulates. and from this the brain derives its firmness. From chronic inflammation, or persistent congestion this fluid undergoes an alteration, in consistency or in quantity.

In acute inflammation the transudation is mostly plastic, and it coagulates, so that thickening of structure is produced. In chronic inflammation, the intercellular fluid is more watery and therefore disposed to absorption; fatty decomposition commences, and the connection of the parts is lost in fatty softening; finally even the nerve tubes are destroyed, and cavities are formed—generally, however, such cavities follow extravasations of blood which have been absorbed. If we place a section of brain thus affected, in alcohol, it speedily hardens, and has a granular appearance under the microscope. If, however, the intercellular fluid be less albuminous, and brisk degeneration is already on the advance, then the hardening takes place slowly in alcohol, and not until after several days immersion has the brain coherent firmness to allow of thin slices being made from it. The fatty substance filling the whole structure renders these slices opaque. We also find in them a quantity of fine granules, which are lost in chloride of lime, and only coagulated albumen remains.

In acute inflammation, large cells, which are entirely filled with small fatty vesicles, form between the fibres and cells of the grey substance. These were formerly called inflammation-globules, because so often met with in this diseased condition, and in fact they occur in the brain, only in inflammation.

Whether the amylaceous corpuscles which I have observed between the so-called inflammation-globules in

the medullary substance, originate after death, as Stillé assumes, or are present during life, I must leave undecided.

PATHOLOGICAL ANATOMY OF THE BRAIN.

That excitations and inflammatory conditions of the pia mater, according to their degree of development, stand in the most intimate relation with the various forms of insanity, no one can doubt, on retrospection of the statements made by me relative to the cortical substance of the brain, as the organ of the higher mental faculties, the connection between mind (*Seele*) and body, the influence of the body over the mind, and the circulation of the blood in the brain. There are, however, still a few leading points, which are worthy of further remarks.

It is known that the pia mater is covered by the arachnoid. Authors now generally, and in my opinion with perfect accuracy, describe the arachnoid as lining the inner surface of the dura mater, and this portion is designated its outer fold; its inner or visceral fold on the other hand, covers the brain, and so that it does not dip between the convolutions, but bridge-like, passes from one convolution to another. It is attached to the underlying pia mater by tender areolar tissue. The pia mater has been regarded as a vascular membrane, which continually gives out a serous fluid, which intervenes between the pia mater and the arachnoid, and in the normal condition seems never to be totally wanting. But if the pia mater passes into an inflammatory condition, or even into a condition of strong congestion, then not only is the quantity of effused serum between the membranes increased, but the fluid becomes fibrinous, and coagulates after death.

In one case I was able, within six hours after death, to undertake the examination of an insane person who had already passed into fatuous dementia. After opening the skull, and laying bare the brain, there appeared all over, between the arachnoid and pia mater, a thick exudate, which, on cutting through the membrane, flowed out so copiously that I placed a dish beneath to collect it. In half an hour afterwards I saw, to my surprise, that the fluid in the dish was changed into a whitish mass, which looked altogether like an inflammatory rheumatic membrane, and allowed itself to be drawn up as a firm skin. This fluid must have consisted chiefly of fibrin, which thus coagulated. In the mean time, the cerebral membranes had become transparent, and had resumed their natural condition, although only recently they appeared as if thickened ; but the pia mater was so firmly grown to the cortical substance, that it could not be withdrawn without tearing away with it the brain substance.

In order to arrive at a correct decision on the form and degree of insanity, we must hold fast by the conviction, that the anterior and upper part of the brain stands in the closest relation with our higher mental powers, and especially with the grey surface, or cortical layers, which lie beneath the frontal bone ; and as far back as the apex. When, in persons who have died insane, the pia mater is carefully raised from these parts, and washed by dropping water on it from a sponge, we may remark the following facts :

In rare cases, those for instance in which the patient dies at the commencement of the disease, the grey surface appears diversely colored ; on some convolutions it is bright red, and in others paler. These color-shadings

are sometimes not to be observed without close inspection, and they are the results of severe congestion in these important parts, or perhaps of incipient inflammation. We find them also in patients who have died in typhus or nervous fever, with strong delirium. We rarely find these changes in recent cases of insanity, at the same time also on the inferior or posterior lobes.

When, from long duration of the disease, and severe commencement, it has passed into inflammation, we have much trouble in withdrawing the pia mater, the vessels of which are now gorged, from the brain surface ; indeed, according to the degree of inflammation, whole layers will be separated from the grey layer, (*schicht*,) and remain on the vascular membrane. In these cases a greater or less quantity of plastic lymph is almost always thrown out between the pia mater and arachnoid, and from coagulation in the dead body it may become so opaque, as to constitute a thick white coating through which the convolutions will hardly be visible.

If after chronic duration, the disease has passed into stupidity or fatuity, then we no longer observe any strong coloring. The vessels are but little filled, and the pia mater admits of as easy separation from the convolutions as it does in the healthy state ; the grey substance appears pale and anemic and even thin and somewhat atrophied ; the exudate which, in the earlier stage, unites the pia mater so fast to the grey surface, has now all disappeared ; a watery clear serum bathes the whole surface, and the blood vessels, especially at the base of the brain, are in general covered with bony plates, or atheromatous layers.

When transformations of the above character have taken place, recovery can hardly be expected. In the

second stage, however, that of coalescence of the pia mater, recovery may yet take place; for I have found this morbid condition frequently in persons who have suffered in the same way, or perhaps not near so severely, as others who recovered.

Chronic inflammation of the brain substance is not always limited to the anterior and upper surface; after long duration it lays hold on the inner surface of the sinus and the ventricles. The pia mater in the ventricles is usually thickened, and it has, under light falling on it, the appearance of being covered with fine sand-grains. At the same time we find a certain quantity of clear serum in the ventricles, from which they undergo a corresponding softening. The pia mater on the corpora striata is mostly thickened, and cannot in general be separated from the brain without tearing with it some of the softened mass. During life, this transformation is usually indicated by a trembling of the lips when speaking, or in a more advanced stage by stammering and a dragging and unsteady gait. The third ventricle also may be distended with serum, in consequence of which the roots of the nerves supplying the muscles of the eyes, suffer pressure. From depression of the energy of these nerves, the equilibrium between the levator palpebræ superioris muscle, and the orbicularis, which is supplied by the facial nerve, is destroyed, and ptosis is produced, a symptom which betokens a brain disease not to be removed. Should the pressure within the third ventricle be augmented by continued effusion, then the oculo-motor nerves, are still further weakened. An unequal action, between the interior rectus muscle, which is supplied by the oculo-motorius nerve, and the exterior rectus, which is under the government of the abducens, now

exists, and greater or less strabismus externus, is to be observed.

INFLAMMATION OF THE DURA MATER.

We find but little in authors on the subject of inflammation of the dura mater. The disease would appear to occur very rarely, or not at all, as a primary affection, but only in conjunction with injuries, or caries, of the cranial bones, and it is only incidentally treated of, in this connection.

Andral, who has collated so many observations upon cerebral diseases, does not give one case of acute idiopathic inflammation of the dura mater. Abercrombie mentions only one case, in which the arachnoid and pia mater, and the brain, were also embraced, as is usually the fact; but this case does not appear to have been observed by him before the death of the patient. Fizeau, Hankel, and Rumler have detailed a few cases; and two are given, each, by Schoenlein, Copland, and Bressler. Foville says the symptoms of inflammation of the dura mater appear to be unknown. In the excellent work of Lallemand we find, however, several observations on inflammation, and various other affections of the dura mater, which resulted from injuries, exostosis, syphilis, and other causes. He has depicted the characteristic symptoms of the disease in perfect accord with my own observance. Hoppe was ignorant of the characteristic symptoms; and according to him, the disease occurs very seldom as primary or idiopathic, but mostly from caries, or some other lesion of the skull, or from syphilis, or external injuries.

We find the most important of the symptoms given with brevity, but with fact-consistency by Leubuscher (Ber-

lin, 1854, and Leipzig 1860;) he remarks, however, as the others, that the spontaneous or primary form of the disease, at least the acute, occurs but very rarely, and that he had found only one case in Abercrombie.

So far as my own experience goes, the disease is by no means so rare, but it is usually mistaken, and is most commonly regarded as rheumatic headache. As, however, this very dangerous disease may be recognized by distinct symptoms, and as the possibility of cure depends on its detection, I have deemed it useful to present the details of a few cases observed by me.

FIRST CASE.—A woman of about 40 years old, came into the outer hospital in Amsterdam, which I attended from 1824 to 1826. She was treated by me for fever and dropsy, and left the institution recovered, without having shown any indications whatever of brain disease. A year afterwards she returned to the hospital, with manifest mental aberration, under which she refused all medicine. The countenance was swollen and florid, from congestion; she complained constantly of severe headache, and kept her hand mostly on the left side of the occiput. An increasing comatose condition soon set in, and the evacuations of urine and feces became involuntary. Leeches were applied to the head, and subsequently cold ablutions; and a cooling mixture was given inwardly, but the latter was not fully taken; no relief was produced. After two days she improved, and her mental powers were quite restored. She complained only of faintness, but this passed off in a couple of days. I entertained the belief that her recovery was perfect, as the headache had quite passed away. A fortnight later, without any known cause, she again refused all medicine, and stupor and coma again set in. This state lasted nine days, when once more all her symptoms disappeared. But the attacks of sopor returned frequently, and lasted from four to five days each, at the end of which they passed off spontaneously. She would not take either food or medicine during them. The stools were natural and of usual quantity in the intervals. The pulse was not quickened, but rather weak. The treatment was mostly cooling and antiphlogistic. Ultimately diarrhea set in, under which she gently expired, in a comatose state. The post mortem showed the left hemisphere fast

grown to the dura mater, and especially above the left ear, near the falciform process, and on the upper part of the inferior lobe, close by the fissure of Sylvius; the dura mater was here reddened and thickened by inflammation.

No brain softening was found at this place, rather, indeed, the brain appeared somewhat firm. In other parts of the body nothing unusual was found.

From this case, I apprehend that a chronic inflammation of the dura mater and the brain, with long and complete intermissions, may occur, in which not the slightest symptom of disease may be presented.

SECOND CASE.—A woman about 40 years of age had for a long time complained of insufferable headache, the severity of which finally obliged her to seek relief in the outer hospital of Amsterdam.

On admission she was quite insane, and had all sorts of delusions, and after two days she passed into a state of torpid alienation. The eyes had a dull expression, and she lay in a stupid condition. She frequently pressed her hand against the forehead, which action was prompted by the severe pain in that region, though she now, owing to unconsciousness and her half comatose state, complained but little of it. There could be no doubt as to the existence of a local brain disease. Derivative remedies, antiphlogistic treatment with leeches, and, later, some doses of camphor, did very little good.

After six weeks, consciousness returned, the headache ceased, and not a trace of somnolence was observed: the woman felt sure she had perfectly recovered, and I began myself to believe in recovery although I had before me the sad experience of the former case. All the functions were in their normal state, and the woman seemed free from every defect.

Though the convalescence was assiduously watched, yet after eight weeks, without any known inducing agency, the headache returned with renewed severity, and with it was associated delirium with all sorts of insane delusions: two days later coma set in. Involuntary contraction of the left limbs took place (an occurrence I have often met with in brain softening,) and very soon after the woman died.

On opening the skull, I found the right hemisphere in front very fast grown to the dura mater. Beneath this adhesion lay two tubercles, which, on being cut through, showed a cartilaginous hardness,

and the brain mass around them was in a state of brothy softening. In the posterior and lateral parts of the right hemisphere similar traces of inflammation were found, and small tubercles surrounded by softened brain substance.

In this clearly marked brain affection, a perfect intermission of all symptoms of disease had also taken place. I would remark in this case that the anterior cerebral lobe was affected, and in consequence the delirium and mental aberration were present in a higher degree than in the case preceding.

THIRD CASE.—A woman of about 36 years, of weak and stupid mind, complained of an uncommonly severe headache, and in consequence sought relief in the outer hospital in Amsterdam. She had a very dull aspect. In two days she fell into a comatose state, which alternated with strong mental aberration. Resolvents inwardly, a blister to the neck, and the in-rubbing of tart. emet. ointment, produced no improvement. After a little time I tried nitre with camphor, and in this case also, after six weeks, all the symptoms disappeared, and the woman appeared to be well. Though I might not ascribe the change to the camphor, yet it was clear that this medicine had done no harm. The woman seemed to make a perfect convalescence, and indeed to be quite cured; but from my past experience I forecast a fatal return of the malady; and this showed itself in three weeks from the time of the improvement, despite of every care to avert it.

The patient very speedily became wholly unconscious; congestion and a flushed countenance appeared, and she had laborious breathing, and light convulsions. I opened a vein, and abstracted blood, which had the inflammatory character, and subsequently I applied leeches and cold ablutions to the head. The stupor did not decrease, the congestion of the head continued, and finally convulsions took place, and ended in death. The intestinal evacuations in this case were sluggish, but the appetite, except in the comatose period, was quite natural. The iris had a striking pale color,—a fact which I had noticed in many other patients, and have often observed since.

On post mortem, strong inflammation was found in the liver and the right lung. This inflammation must, however, have been developed long before, for the liver adhered to the diaphragm by a very firm

pseudo-membrane, in which I was able to fill with quicksilver the new lymph vessels, which is practicable only in old pseudo-membranes. This inflammation had not, during life, made itself known by any sort of symptoms.

On opening the skull, I saw that on the left side the dura mater was fast grown to the hemisphere, and especially so behind the anterior branch of the middle meningeal, on the upper part of the inferior lobe. The brain mass was here softened, and infiltrated with yellow serum, that a cavity of two and one-half centimetres in depth and four centimetres in breadth, had been found. In the rest of the brain mass, which was a little soft, yet normal, red points were found throughout. A large quantity of serum ran out of the ventricles. The left corpus striatum was not so consistent as that of the other side. In this case, the inflammation had manifestly spread over the whole brain, more than in the others; it had penetrated to the ventricles and seized the corpus callosum, and in this fact we have the explanation of the convulsions, which occur especially in last attacks.

The recurrence of the disease, with such severity, despite of the prevention of all injurious agencies, deserves our most serious attention.

In all probability the extending inflammation of the pia mater had been developed in the first attack, and after producing the mental aberration, it had advanced, and involved the cortical layers in the range of the disease.

FOURTH CASE.—A woman of 57 years, who had for a long time complained of severe headache with numbness and beating in the head, came into the outer hospital of Amsterdam in 1826. She had frequent vomiting, with furred tongue, and complained of stiffness of the limbs.

Laxative and derivative medicines were administered, and leeches were applied to the head. After these, the bowels moved properly, but the uneasiness of the head, with sleeplessness, and a labored and stammering articulation continued; and contraction of the pupils, loaded tongue, a bitter taste, and strong thirst were present.

Under the persistent use of tart. emetic, laxative remedies, and clysters, the bowels were regulated, but at the same time the brain

symptoms became worse, and after five days the woman fell into a comatose state, with half shut eyes and open mouth. She lay mostly on the right side. The right arm was constantly flexed, but she pressed the left one on the left side of the head, indicating that she still felt there a dull pain. On the following day the mouth was drawn on the left side, and the pupils were still more contracted, especially the right one; the speech was extremely difficult, and in the persistent sopor the patient answered oft repeated questions merely with a few words. A few days after the arm had become flexed, paresis appeared in the right leg, and speedily advanced to complete paralysis. A constant whining complaint, interrupted at times by sharp outcries, indicated the continuing severe pain of the head.

Her state continued thus from 28th March to 4th April. Then under the exhibition of antiphlogistic and resolvent remedies, a mitigation of the symptoms appeared: the eyes became more open, the pupils were no longer strongly contracted, which condition had been greatest in the right eye; the left eye was red, from distended blood vessels; the obliquity of the mouth disappeared, and the sopor appeared to have passed off; but at the same time the discharge of urine became involuntary,—and the patient complained of severe headache on the left side, backwards. She had no delirium.

After two days the symptoms of the disease returned with renewed severity. The right arm became stiffly contracted, and felt cold: the patient could not hold anything fast with the left, probably from an augmentation of loss of feeling; the right pupil was again strongly contracted: as only a little dark urine was evacuated, I caused the catheter to be introduced, and a large quantity was thus withdrawn. Both legs were strongly drawn up, and coma and unconsciousness increased. On 18th April convulsions set in, under which the patient died.

On post mortem much indurated fecal matter was found in the colon. The cæcum was inflamed and indurated, in some parts even of cartilaginous hardness: the liver was inflamed, and filled with tubercles; on the spleen was found a firm cartilaginous plate: the lungs were adherent, and hepatised. On the left side above and behind the parietal region, about one centimetre from the falx, and two centimetres above the tentorium, the dura mater had become adherent to the arachnoid and pia mater, over an extent of about seven centimetres, and was strongly inflamed and thickened.

The arachnoid under the adherent parts, covered some pus, the vessels of the pia mater were very much distended, the grey layers appeared much reddened, and numerous red points were observed in the medullary parts: the thalami, especially the left, were much reddened; the brain felt rather firm.

This case shows us that in our efforts to clear the colon of retained indurated fæces, we may fall into error, since the daily evacuation of the bowels was for a long time attended to, by the exhibition of laxatives and derivatives, aided by clysters.

The degeneration of the colon was not of recent occurrence, but the symptoms connected with it were obscured by the more prominent phenomena of the brain disease. It is probable that the foundation of the brain disease lay in the obstruction of the colon, as the posterior lobe was affected, and the colon more generally exerts a reflex influence over the posterior parts of the hemispheres, than over the anterior. The induration and thickening of the colon in the last period of the case, no doubt contributed much to the difficulty of evacuating the hardened contents.

It is to be remarked in this case, that the posterior lobes and the thalami were particularly affected; and the right pupil during the progression of the disease appeared much contracted, whilst the vessels of the left eye, the inflamed side, were much distended. The anæsthesia of the left arm may have been connected with the affection of the thalamus.

There existed in this case an intense inflammation in the posterior part of the hemispheres, without involving the anterior lobe, but no delirium was present, thus constituting a marked difference from the second case, in which the anterior lobe was diseased, and strong delirium

existed. In consequence of the intensity of the inflammation, the intermission was of short duration, and was incomplete.

This case is further instructive, in the fact that in a comatose condition, the bladder may be quite full, whilst the urine involuntarily dribbles out.

FIFTH CASE.—A full blooded man, between 40 and 50 years old, had, a year and a half before his last illness, suffered a fall upon the side of the head, and at the same time had broken a rib. Soon afterwards he had an attack of apoplexy, and the right arm became paralyzed, but not the leg. After a little time his condition improved, but the arm continued paralyzed. He had besides a lesion of the under jaw, which had been broken, half a year previous to his fall, by the forcible extraction of a molar tooth.

In the summer of 1825 he came into the outer hospital of Amsterdam, and was under my care. He complained of severe pain of the head, and tightness in the chest, and his arm was still paralyzed. After a short period of treatment, the symptoms disappeared, with exception of the paralysis of the arm, and he left the hospital apparently recovered.

In March of the following year, he was brought back, in a state of total unconsciousness. He had strong congestion in the head, and a hard pulse; he lay constantly on the right side. A free bleeding was had recourse to, and the blood had a very inflammatory character; the sopor did not abate in consequence of the bleeding; the only remarkable fact was that the patient now raised the arm that had been paralyzed, to his head. The movement seemed to be in part voluntary, as he rubbed the top of the left side of the head, with the right hand; but at other times it was an involuntary movement, induced by contraction of the flexors, which bent the arm stiffly, and after we forcibly extended it and let it go, it would move of itself to the head again. He now laid on the left side, which seemed to be paralyzed, as no part of it moved. The right half of the face became paralyzed, and the muscles of the cheek and angle of the mouth hung motionless. The urinary and faecal evacuations became involuntary.

Blood cuppings were used on the head, but without any benefit. In the following night strong convulsions set in, and the patient died

under them. The post mortem showed the skull much thickened, not a rare fact in chronic inflammation of the dura mater. Much blood flowed out from the left and hinder parts, after passing the saw through. The dura mater at these parts was much thickened and fast grown to the brain. The upper surface of the brain was dry, probably in consequence of the escape of the serum, in the section of the dura mater. The ventricles contained much bright yellow serum.

The medullary brain substance, under the adherent portions of the dura mater, and as far inward as the lateral ventricle, was reduced to brothly softening, and some yellowish serum was found amongst the nerve fibres. The softening had, in a somewhat oblique direction, an extension of not less than eleven centimetres. On the middle of the softened part, where the dura mater was most affected and thickened, the brain substance was changed into a sort of tubercle, of about three and one-half centimetres in size; and this was, to the depth of two centimetres, quite hard and red colored, and fast grown to the dura mater. But it was not tubercle, for the boundary of the hardened part passed over into the softening, and the acutely inflamed part was surrounded by the softened mass. The skull, over the diseased part, was carious, and the eroded bone felt rough.

Probably this was the spot which had sustained the force of the injury in the fall referred to. Through this external force, a chronic inflammation of the dura mater might well be developed, and at the first of the patient's residence in the hospital, I had observed some of those accessions which in similar lesions are wont to disappear spontaneously.

The half voluntary, half involuntary, movement of the right arm, and the paralysis of the left, are well worthy of attention. Probably excitation of the left corpus callosum, or of the left thalamus, and subsequent compression, by serum in the ventricles, had induced the paralysis on the left side.

The paralysis of the right arm alone, in a lesion, of the upper and posterior part of the hemispheres, might probably be adduced in favor of the assumption of Pinel

Grandchamp, that in affections of the posterior lobes and the thalami, (the arm,) but in those of the anterior lobes and the corpora striata, (the leg,) is paralyzed. I have, however, as little evidence to offer in support of this theory as Andral.

The involuntary pressing of the affected part of the head by the hand, despite the existing coma, proved how severe the pain must have been.

I may mention, as an unusual fact, that the under jaw on the one side, was as thin as a quill, as far forward as the infra-maxillary foramen, and the fore and hinder parts were kept together merely by bands.

SIXTH CASE.—This case has already been fully described by G. A. F. Quarin Willemier, (*Diss. de Otorrhea*, p. 57.) It occurred in a mason, who was precipitated by a falling wall, and being caught in his descent by the scaffold, he hung with the head downwards, and whilst thus placed, a heavy stone struck him in the region of the lower jaw, from which the articular fossa was much injured. From this time forward he complained at intervals of a pain in the head, on the right side. After the lapse of five years, this pain spread over the frontal and lateral parts, and increased to so high a degree, that he was almost driven to desperation; he had no rest, day or night; finally he became insane, and the pain seemed to have left him. Deafness in the right ear now took place, together with paralysis of the left facialis, and strange enough there were subsequently added ptosis and external strabismus of the right eye. No other paralytic symptoms were present.

On 12th January, 1835, that is to say, eight years after his accident, he was admitted into the Utrecht Insane Asylum, as a demented patient. After some time his condition improved, and he could again work, without complaining of pain. But all at once, without any known inciting agency, the pain again appeared, in a high degree; apoplexy took place, and speech and deglutition afterwards became difficult; the right eye appeared swollen and red. The apoplectic seizure was repeated, but on 2d March of this year, he was once more quite sane, though very weak. He was quite conscious of

approaching death, and arranged his affairs accordingly, and died the following night.

I found the dura mater above the fovea glenoidalis almost as hard as cartilage, and not less than two lines thick. The inferior cerebral lobe was fast grown to the dura mater, from the fossa Sylvii as far back as the cerebellum, and it was reduced to a broth infiltrated with serum holding some pus. Over the base of the skull, and on the crura cerebri, the pons, and the medulla oblongata, purulent serum was diffused.

The inflammation of the dura mater in front of the pars petrosa, extended as far as the wing of the sphenoid bone, and to the cavernous sinus, at which part the oculo-motorius nerve showed strong signs of inflammation, thus explaining the origin of the ptosis. The remaining nerves appeared to be sound. The dura mater on the pars petrosa, was not diseased. The cavity of the tympanum was quite filled with plastic lymph; the ossicula were reddened by distended vessels, and the vestibule and semi-circular canals presented the same appearance. The pia mater in front and above was so fast grown to the hemisphere, that it could not be removed without destruction of the cortical layers.

Without doubt the inflammation of the dura mater had been produced by the blow suffered eight years before death. Whether the blow had produced a fissure, or the condyle was degenerated, I am unable to state, as I was permitted to examine only the brain.

I could, from my own observation, detail more cases, especially of that class which proceed from otorrhea and caries of the pars petrosa. I content myself, however, with the mentioning of a case observed by me, and described by Tobbe (Utrecht, 1860.) It occurred in a woman, in whom inflammation and suppuration in the sinus frontalis advanced, to the inner surface of the skull, and outspreading there, induced a suppurating affection of the pia mater, of which the woman died.

I shall now, by way of contrast, detail a couple of cases, from which it may be perceived that this very dangerous and ill-understood inflammation of the dura mater, may be treated successfully, provided we adopt a vigorous course.

SEVENTH CASE.—A strong built, powerful man of about 45 years, who had enjoyed good health from his youth, was affected, without any known cause, in November, 1832, with a pain in the arm and leg of the left side, which, however, by wearing flannel, appeared to have ceased. From time to time he was troubled with a feeling of powerlessness in both hands, which, however, soon passed off; this occurred about every eight days, and thus continued perhaps a quarter of a year. Soon after this a swelling appeared in the left knee; it was very painful, and under poulticing it suppurated and discharged a large quantity of pus, after which the opening closed.

In December, a pain was felt in the back of the head, near the ear, and it became constantly more severe; he, therefore, in January sought medical advice. By night the pain increased in bed, and as the man was unaware of syphilis, the pain was regarded as rheumatic, an opinion which was corroborated by the disagreeable weather. Sudorifics, chiefly Dover's powder, were given; a blister was put on the back of the neck, and kept running some time, and the pain ceased.

In October, 1833, he again came to his physician, as the pain again tormented him dreadfully in the same place, and extended itself over the ear. He had been free of pain for a long time, but recently it had become periodic, and now it had advanced to greater intensity. The pulse was weak, not feverish; the eyes were dull and tearful, and the countenance was pale. The bowels were sluggish. At first derivatives were ordered; next sudorifics, and especially Dover's powder; but the pain continued, and after four days, on 17th March, he came to me for aid.

I found him in a very uncomfortable condition. The head, which was wrapped in flannel, because of the falsely supposed rheumatism, showed some œdema, the countenance was pallid, and the pain of the head appeared to torment him severely. Every bending of the body was, on account of aggravation of the pain, impossible, and he was forced to sit upright in a chair all the night. A sub-paralytic affection of the left arm now occurred, but lasted only a quarter of an hour, leaving, however, behind it twitching movements. The eyes were dull, vision was weakened, and the pupils were rather dilated. Memory almost totally failed, and he seemed on the point of falling into utter fatuity. The pain extended itself chiefly over the left ear and the back of the head, and with it he felt a rushing sound in the ear.

I at once diagnosed a dangerous inflammation of the *dura mater*,

which had already outspread over the arachnoid and pia mater, and had likewise laid hold on the hemisphere, in consequence of which the mental powers were affected; and I was further of opinion that otitis was among the associated morbid conditions. For these reasons I determined on an antiphlogistic and derivative treatment. The woollen envelopments were displaced by cold ablutions, and I leeches the painful part of the head. Inwardly, I ordered, *R. Tart. emet. gr. v, Aq. destill. ꝯv. ʒi*; a tablespoonful every hour.

18th Oct. The pain has been a little relieved by the leeching, but is still severe enough. The tart. emetic has done no harm, and has not yet acted on the bowels. In other respects the condition is the same.

20th Oct. The head pain is still more severe, but seems now confined to a point, obliquely over the left ear.

I placed an issue on this spot; I acted on the bowels by a lenitive electuary, and ordered the cold ablutions and tart. emet. to be continued. This treatment was persisted in, and the dose of tart. emet. from time to time increased.

29th Oct. At this time one scruple of tart. emet. to five ounces of water was ordered. The head pain had by this treatment decidedly diminished, and the whole appearance of the patient was improved. The twitchings in the left arm had, very soon after the application of the issue, ceased. Gradually, however, some nausea came on, but the bowels remained sluggish. I therefore ordered, *R. Tart. emet. ʒj, Extr. aloes, gr. x., Fell. tauri inspiss. Pulv., liquir. ana., dr. ½. fiant. in pil. 40*; 3, five times daily.

3d Nov. The pain has decidedly lessened, and the bowels are regular. As the patient was free from nausea, I ordered the pills to be given seven times daily.

11th Nov. The whole condition is better. The nights are quiet; the patient can again lie down, and is refreshed by sleep. The rushing sound in the ear has decreased. With advancing improvement, however, the tolerance of the tart. emet. decreased, so that now three pills produce nausea. I therefore reduced the dose to two, seven times daily. This was followed by two or three stools daily.

13th Nov. The pain of the head has abated so much that the patient is but little annoyed by it. The eyes are lively, the pupils are no longer unequal, and the power of sight of the left eye has improved. The mental powers have equally improved; memory has returned, and the countenance shows new life. The issue is running freely, and,

owing to the copious discharge of fetid pus, it has to be dressed several times daily. The appetite continues good, but the patient complains a little of sourness in the stomach, on account of which I ordered a drachm of *sapo medicatus* to be added to the pills.

16th Nov. The sour eructations have ceased, the sound in the ears is quite gone, and the pulse is fuller and firmer. The tolerance of *tart. emet.* has, however, again decreased, and I therefore decrease the pills to two, five times daily,—say five grains.

18th Nov. The patient had taken two pills fasting, as the *tart. emet.* thus produced much less nausea and vomiting; I found him, on my visit, in the act of vomiting. I asked him whether the vomiting produced headache; he assured me that his head was always rendered easier by the vomiting. The soft and weak pulse pretty clearly indicated the depressing effect of the tartrate on the vascular system.

The nights are now tranquil, and the patient feels hardly any headache. He can now attend to his business once more. The issue causes much pain, and he dislikes it very much, and would gladly dispense with it, but I counsel him against this.

He now began to go out of doors, and to his astonishment he found, that though born in the city, he had forgot the names of all the streets, and the right way through them. In reply to his inquiries, when the name of any street was told to him, he again recollected it, and in this manner he learned anew his way through the city. In two days more he seemed to be quite recovered, for he was now altogether free from headache. Regardless of my warning, he shortly allowed the issue to dry up, as he fancied himself perfectly restored, and did not understand the treacherous nature of his disease.

On the morning of the 28th January following, after a rich supper the night before, he had a severe apoplectic fit. He was bled instantly, and six leeches were applied to the head. Consciousness to some extent returned, but it was soon perceived that he had lost his speech, and did not correctly know those about him. As on the following day the head pain again set in severely, six more leeches were applied on the left side of the head, and a blister to the neck, a footbath was also used, and he did not oppose the renewal of the issue. The bowels were again sluggish, and had to be moved by purgatives and *tart. emetic.*

Under this treatment the condition of the patient continued almost unchanged, especially as to the head pain. The speech was difficult

and stammering, and the patient could seldom find the right words ; but periodically speech was better. As the pulse showed no remarkable tension, I administered some weak infusion of arnica, and the speech seemed slowly to improve until 25th February, when another apoplectic fit occurred, in consequence of which not only was the speech wholly lost, but also the power of recognizing his friends.

I now doubted the possibility of restoration, as the disease seemed to have penetrated deeper into the brain, and to have become disposed to assume an epileptic form. I therefore again ordered leeches, and had the issue established on the old place, and stimulated to discharge by an irritating salve. Inwardly I gave again the tartrate, but it was not well borne, and I could not go beyond five grains. The headache persisted, but was more moderate. On 4th March, he had another attack, but less severe ; his speech was again affected.

From this time his condition seemed slowly to improve ; but on 27th May he apprehended that another attack was at hand, as his speech was suspended, and spasms threatened. His wife wished to give him speedily a little spirit of sweet nitre, but through mistake she gave spirit of sal ammonia. He had no sooner swallowed a little of it than the threatened attack seemed to be cut short ; his speech was instantly restored, indeed the difficulty existing in it prior to the attack was totally gone.

From this time forward the head-pain gradually receded, whilst the issue continued discharging ; no more apoplectic attacks occurred, and his mental powers were free. Now, however, a quarter of a grain of the tart. emet. was sufficient to produce nausea. I allowed the issue to remain until the following summer, in August, when it closed spontaneously, without any bad result following.

In the succeeding winter, he was attacked with pain in the breast and difficulty of breathing ; but these symptoms yielded speedily to venesection and demulcents ; and no pain of the head or other brain affection appeared. He resumed his place in his office, and he felt no difficulty over accounts, or in close thinking, neither did he feel fatigued by them. He slept soundly, and without dreaming.

He continued to enjoy unbroken sound health for 20 years, when, in January, 1852, he again suffered an epileptic attack, which was preceded by a feeling of heaviness in the head. The speech was not impaired by this attack, nor was the headache reproduced. I ordered blood-cupplings on the neck, and afterwards placed an issue there ; besides these measures I regulated the bowels, and corrected his diet,

which had been too rich. From that time to the present, 1860, he has been quite well.

We learn from this case how decidedly powerful in Pachymeningitis derivative remedies are, the local efficacy of which is explained by the connection between the vessels of the dura mater and those of the pericranium. When, however, chronic inflammation of the pia mater and arachnoid exists, without adhesion to the dura mater, though these remedies are not to be rejected, yet they act less powerfully.

This case very clearly shows that inflammation of the dura mater is a very tenacious disease. The last attack, 20 years after recovery, obliges us to think that residues of the disease are still present, in the parts once occupied by it, which we may regard as an extinct volcano, from which probably through a strong congestion, a reflex action on the medulla oblongata was produced, which manifested itself in the form of an epileptic attack.

The psychical symptoms in this case are also well worthy of attention. Probably the inflammation had spread over the pia mater, and thus produced functional impairment in the cells of the cortical layers, and in consequence loss of memory resulted, and at a later period, difficulty of speech, but as yet without textural alteration. The direct passage of the arteries into veins, in the pia mater, was here also attended with the result, that the severest storm passed over the patient. As the patient when he first recovered no longer could find his way in the city, though his mental faculties were otherwise unimpaired, we may venture to assume that in a portion of the cells, function was disordered, without any influence being thence exerted on the other faculties.

It would seem too that defect of memory was only an unimportant weakness, since a moderate stimulation, namely the renewal of a former impression by hearing the names of the streets, sufficed to reëstablish the function. In the subsequent attack this symptom was not present.

The operation of the volatile ammonia was certainly very remarkable, for not only was the epileptic attack cut off in an instant, but the speech and memory also were reinstated. I have never since met with the same result, although I have often tried the same remedy in epileptic attacks. The result, however, proves to me that the cells had been impaired in their activity, and were at the same time in a paralyzed condition, which through the volatile irritant was instantly removed. I find also in the fact, a demonstration of my proposition, that the brain substance is not directly very excitable, and that it withstands, for a long time, inflammation and degeneration in itself.

This case also leads to an instructive conclusion as to the operation of the tart. emetic. Its depressing influence on the heart and brain, even in vomiting, appeared in a convincing manner, and the cerebral congestion itself appeared to be controlled by it. Probably, however, we must proceed to some degree of saturation by the medicine, before we can expect this result. Should vomiting be produced by the first dose, then in all probability the congestion would rather be increased, than diminished.

Lastly, this case admonishes us that we should not decide upon a syphilitic underlying cause, from nightly exacerbations of pain, without further evidence.

EIGHTH CASE.—For the accurate clinical history of this case, I am indebted to my friend, Dr. Roelandt, in Rotterdam, by whom I was called in consultation on it.

A wine merchant, named Van K., a man of fifty years, of slim growth, and the so-called lymphatic temperament, had hitherto, from his temperate habits, enjoyed continuous good health. In the year 1854, however, he suffered from furuncles. One of these formed near the eye-brow, two others on the inside of the nostrils, and one of these was preceded by disagreeable twitchings. Under appropriate surgical treatment, he was relieved without any further disturbance of his health, although two more small furuncles followed. In the first four months of 1855, various disagreeable sensations in the head, occurred; a feeling of pressure, a sensation of unpleasant thrilling sounds, weakness of sight in reading and writing, drowsiness, irritability, imperfect apprehension in close thinking. These symptoms gradually increased until, in the first half of June, headache set in with more intensity, and in the two following months became slowly worse. In the first period the headache occurred in the morning. He could not then look after his usual business. He would sit still and grasp his head with both hands, and now and again fall asleep, but the headache would afterward sometimes be worse, and sometimes, after longer or shorter duration, it would cease, to return again at an indefinite hour, by night or by day, and under the most various circumstances. The bowels were sluggish, and to relieve them, domestic remedies and a suitable diet were employed. Notwithstanding his great sleepiness, he was not refreshed by sleep; indeed, the headache was rather stronger on waking. Why the attacks of pain came, and why they went away, was undiscoverable. From coughing and sneezing the pain was increased.

He assigned, as the seat of pain, the forehead: from this part it spread, when it increased, over the temple as far as the neck. On the first appearance of this pain a disagreeable twitching in the nose had set in, as had occurred twice before in the development of nasal furuncles, and in consequence he expected another one now. Instead, however, of this, the pain of the head, in irregular paroxysms came, and no more withdrew.

The objective symptoms of the disease were the following: 1st. Paleness of the face; a dull and peevish expression of the eyes, which were weakly injected; low temperature of the skin, especially

of the limbs; elevated temperature of the head, especially on the forehead and crown. 2d. In standing, the patient had not his wonted energetic port; he would rather sit, supporting the head on his hand; in lying, every movement was wearisome. 3d. The pulse was rather unfrequent, (54 to 56), sluggish, small, and easily compressed. 4th. Respiration was tardy. 5th. Innervation is low in this case, as may be inferred from the psychical and sensual functions, and from the vegetative also. In the muscles of the legs reflex movements frequently occur, even during sleep.

The diagnosis at the first visit was obscure. On account of torpidity of the bowels, on 13th and 14th July, small doses of extract aloes were ordered, which operated, and the pain of the head remained longer absent in the morning. On 15th July, six grains of tart. emet. in six ounces of water, were prescribed, by which nausea and a copious outclearing were produced. Nothing further was ordered until 24th July.

The patient observed that for six hours daily, from ten in the morning till two afternoon, he was free from headache, and could apply himself to business, but that through the remaining eighteen hours his condition was as already described. It was thought that he might have a masked intermittent, and accordingly he was ordered, *R quinae sulph., ʒ j, extr. liquirict. ʒ ij, fiant pil. no. 40.* Take 2 pills hourly whilst free from the pain.

The headache passed off, and a natural and tranquil sleep followed, and after the 2d August he quit taking the pills. The recovery however was of short duration, as on 8th, the former state of the patient returned. It was then believed that he had a recurrence of the intermittent, and quinine was again ordered, but this time without any result. The symptoms became worse, and no longer presented any appearance of an intermittent.

The patient was advised to use shower-baths, but they had no sort of effect. Six leeches were applied behind the ear, and free after-bleeding followed, but no improvement resulted; indeed all the symptoms became rather worse, and the headache more lasting; his sleep was more soporose, and he always awoke with severer headache; the reflex movements of the legs became more numerous; on one occasion dilation of the pupils was observed, but it was only transient. The manifest congestion in the head, and the blood stasis, demanded powerful deriviation. On 29th August he was ordered,

℞ tart. emet. gr. 6, mucil gum Arab., aq. naph. ana Unc. j, aq. destill, Unc. 6. ℥ a tablespoonful every hour.

On 30 August, this solution was repeated. On 31st an infusion of senna, with anima rhei and 6 grains tart. emet., was ordered; and in addition cold ablutions to the head, and sinapisms to the calves of the legs. Copious stools followed.

On 1st and 2d September the same means were continued, and for the first time a free watery vomiting, with bilious intermixture, took place. This was followed speedily by comfortable repose and relaxation, tranquil sleep, and waking without headache, moderate temperature and moist skin, improvement of the sluggish pulse, and abundant evacuation of urine. The patient felt himself decidedly better, and hope of recovery was now entertained. In order to keep up the derivation, a blister was placed on the neck.

But soon again the vanished symptoms showed themselves. On 3d October the disease reappeared in a more decided form than before. Extract of aloes was given in increased doses, but without effect. The symptoms became but more aggravated, the patient fell into complete lethargy, the forehead felt warm, and above the eyebrows was markedly red, the pulse sank to 50 beats.

On 6th Sept. I was called in consultation. I found the patient as stated, and quite unconscious. I diagnosed Pachymeningitis. I caused four leeches to be applied in the nose, and advised that, as much as possible, after-bleeding be promoted; and as the tart. emetic is better borne, and in larger doses, in form of powder or pill, than in solution, I ordered, ℞. Tart. emet. gr. 9, Sacch. Albi. dr. 3. Divide in partes aequales 9. One powder every hour.

I also advised that the sore part of the neck should be brought into free suppuration, and that cold ablutions be applied to the head, and sinapisms to the calves of the legs, and further that an enema be administered. The enema produced a copious evacuation, followed by five watery yellow stools. The leechbites bled freely. The patient, in the evening, was already better; he was conscious, the pulse had risen to 60 beats, and the skin felt warm; the urine was no longer dark looking. The night passed quietly, and during it the headache passed off. August 7th the pulse was 66, and the patient enjoyed himself a little. The powders, the sinapisms, and the enema were repeated, and the discharge from the neck was promoted. In the evening the pulse fell to 62, and was small. The patient lay bent forward on his side; he manifested on some things false concep-

tions, and assumed a very commanding tone. I had made the remark that after the subsidence of the symptoms, a recurrence might be looked for, and therefore six leeches were placed on the forehead, and after-bleeding was promoted by elastic cups, so that about five ounces of blood were drawn. After this, tranquillity took place, and the patient had a quiet night.

8th Sept. No trace of headache; the illusory ideas have vanished, the head and other parts of the body have the normal temperature; the pulse is full, with 50 beats in the minute; the tongue is less coated, and is more moist; the restlessness and the reflex movements of the legs are no longer observed. The powders were repeated; and an ounce of castor oil was ordered to be taken in two parts.

9th Sept. The night has passed quietly. The psychical functions are all right, excepting that some disturbance of the memory, and of computation of time, is observed; the headache has kept off. The powders had caused no nausea, and were therefore continued. Towards evening the patient became restless, and was with difficulty kept in bed. The urine showed a cloudy deposit.

10th Sept. The sleep has been sound, the breathing groany with sobbing. In the morning much urine was passed. The pulse was more developed, and the temperature a little elevated. Chewing and swallowing have become difficult, and the patient refuses food; in the evening he strongly opposed the taking of the powder. An enema produced but little effect.

11th Sept. The night has been quiet. The pulse varied from 55 to 65. He resisted the powder obstinately. At the second visit the continuance of the Tartrate was opposed, and it was ordered in smaller doses, viz: *R. Tart. emet. gr. 10, Extr. Hyosc. scrup. 1, Extr. Liquir. dr. ½. Fiant pilulæ, No. 30. One every second hour.*

Up to the 15th September his condition was good, indeed he improved daily. The headache had entirely passed away; the judgment, and the state of the feelings, with exception of a trivial excitability, left nothing to be wished for. The sleep was quiet, and free from dreams, which up to this time had always been frightful. The pulse had 70 beats per minute. The patient was able without difficulty to leave the bed for a short time. The tongue had a grey coating, and appeared swollen; the appetite was, however, quite good.*

* This often occurs in maniacs and indicates a continued irritation.—*Translator.*

The Tartrate was, under these circumstances omitted for two days, and the tongue assumed its natural appearance. On 13th an enema was given; also an ounce of lenitive electuary with four grains of extr. hyoseyami.

16th Sept. The patient is to-day in a much altered condition, and the hope of recovery has for the third time been blighted. On the previous evening the hands had gradually become cold, as in the former relapses, and next the headache returned, and the night was not, as the previous one, passed comfortably; in short, every thing pointed to a return of the former unpromising condition, and it was believed that the evil must be charged to faults of diet.

The patient lay listless, and suffering from headache in the old place. The skin temperature was low, and unequal; the heart beat 60 in the minute. As fresh congestion and inflammation were to be feared, four leeches were placed on the forehead, and the after-bleeding was promoted by elastic cups. Sinapisms were applied to the calves of the legs and the soles of the feet, an enema was given, and lastly lenitive electuary with the tartrate.

17th Sept. The night has not been very restless. The headache was less severe, but now and again some marks of mental aberration were noticed, and great inattention and peevishness existed. The appetite was good, and the bowels were regular. At the evening visit the patient declared he was free from headache, and he had again slept comfortably. The heart beat 60 per minute. The tartrate was taken without opposition.

18th Sept. In the night a thin, but not copious stool. The aspect of the patient is not so good; he has a suffering appearance, a cool dry skin, pulse 57, more headache, and his whole bearing forebodes evil. Six leeches were placed on the forehead, and after-bleeding was promoted by cups. Tart. emetic without hyoseyamus was given, also an enema, and cold ablutions were ordered to the head.

As these dangerous relapses constantly recurred, his physician came to the conclusion, that he had to deal with a specific inflammation, the result of furuncular dyscrasy, with which the disease set out, and which, though repelled by powerful antiphlogistic means, might as yet not have been removed. He therefore decided on the employment of corrosive sublimate, as a remedy which destroys morbid germs, and which, according to his experience, had proved most efficacious in severe external inflammations, which, for weeks long, had resisted the most potent antiphlogistic measures. He ordered, R.

Merc. subl. corros. gr. 1, Sacch. albi dr. 4. Divide into 24 equal parts. One powder every three hours.

The physician felt the more disposed to this remedy, since the bleeding this time did not produce the least benefit; the symptoms rather indeed became more severe.

I had been absent some days, and was now again consulted. I had nothing to say against the small doses of the sublimate, but I did not expect much from them.*

On 19th Sept. the condition was much the same. The pulse was 48. The patient was quite indifferent and apathetic, and under the least motion, pain in the head took place. A little food, taken at noon, was vomited. In the evening two leeches were applied in the nostrils.

20th Sept. After the application of the leeches, the patient was better, and had a better night. An enema had operated freely; no more vomiting. The pulse has risen from 44 to 56, the headache is moderate, and the patient is more conscious—copious urine. The sublimate was continued.

From 21st to 23d. Favorable and less favorable symptoms interchanging; the latter, however, predominating.

24th Sept. The patient has become much worse, and the hope of a favorable issue is now still fainter. Though no decided exacerbation of the headache has occurred, yet there is manifestly less power of feeling, and blunted sensibility and indifference probably hinder manifestation of pain. The patient speaks not so well as formerly; now and again he brings out a word with trouble. He may have the power of sight, but he does not seem to apprehend the visual impressions. Day and night now seem to be to him the same. The difference between sleeping and awake is merely apparent. Food is now hardly at all taken, and drink but seldom of late, too, decided general emaciation has appeared, the cause of which may be the weakened operation of the nervous system on the vegetative function as likely as decreased supply of food. The adynamic character of the disease is more and more declared, and the depression of innervation, in the absence of all paralytic symptoms, seems to indicate recourse

* This remark of Van der Kolk is hardly what we might expect from a person of so much generous feeling as we believe him to have possessed. It was surely full time, after a period of several months treatment, and six weeks persistence in the tartar emetic without any positive gain of ground, to review the case and shape some change of treatment.—*Translator.*

to stimulants. For this reason infusum flor. arnicæ ($1\frac{1}{2}$ dr. in 6 ounces,) was ordered, but at the same time the sublimate was continued. An enema was also given. Towards evening still farther depression took place and a large blister was placed over the whole forehead, as far as the temple and the crown of the head.

25th Sept. The night has been quiet. He sobbed occasionally; the pulse is somewhat stronger, but beats only 40 in the minute; the skin temperature is more natural, and swallowing less difficult, than on the following day. The exhibition of arnica was, on account of the skin temperature, omitted.

26th Sept. In the night severe, but only short continued, headache occurred. The intelligence is very low, and only powerful impressions act on the sunken vital condition. The pulse has advanced from 40 to 50 beats. The patient swallows with difficulty and reluctance, and when he tries to speak, the single word seems to stick in the throat; and but seldom, now, lucid intervals of the speech-faculty occur, when he says something spontaneously with ease. He rather seems to sleep, than to be asleep. As the blister had not yet risen, another was put on. An enema also was given.

27th Sept. The urine has, for the first time, a strong deposit, which, however, did not appear the following day. The lachrymal glands discharge copiously, and the fluid collects between the under eyelid and the bulbus, and also in the inner angle. This continued also through the next day.*

The tongue is moist, and appetite has returned. The same medicines were continued.

28th Sept. On the whole, the condition is cheering; the breathing is good. Up to this time $3\frac{1}{2}$ grs. of sublimate have been taken, without appearance of salivation. The skin temperature was always heightened by the arnica. The patient will positively take no more of it.

29th Sept. During the night he has been pretty tranquil. The condition is on the whole unchanged. The sublimate is now given in only half the dose.

30th Sept. The morning condition was still the same; in the evening, however, a favorable change took place. The patient unexpectedly rose up, spoke freely, ate and drank with appetite, and was

* Surely the author could hardly regard this symptom as of any clinical value. It would be strange indeed if a blister in the forehead did not stimulate the lachrymal glands.—*Translator.*

not so exultant of this improvement as he was of the former ones. He spoke quite sensibly of the danger which had so long hung over him, and seemed to be correct in everything. He felt quite well, had 50 pulse-beats in the minute, and was free from headache.

1st Oct. The night has passed pretty comfortably; no headache, no disturbance of the mental functions. Pulse 50. The bowels were moved by lenitive electuary, and the sublimate was continued.

4th Oct. The vesication has passed off, and is now kept running only as an excitory, in a half-moon form, on the frontal protuberances.

From this time the improvement went on day by day, all the unpleasant symptoms disappeared, and the headache also. The dose of sublimate is now given at $\frac{1}{48}$ gr., and at intervals the lenitive electuary is administered.

13th Oct. The excitory is doing well; the sublimate is to be discontinued. A small furuncle has appeared on the forehead, the result of skin irritation. No appearance of salivation. The diet was ordered to be strong. For some hours each day the patient left his bed, as convalescent. This improvement advanced uniformly. On the 8th of November the pulse was 82, and regular; the emaciation was decreasing, and he was able to do some business.

From the above time to the present, (1861,) the man has remained constantly well. Nothing troubles him, except that the exhalation from the wine in his cellar is rather unpleasant to his head. The headache has not, however, returned. It may well be said that in the obstinate fight with fierce contending death, a signal victory has been achieved.

This case most convincingly demonstrates how obstinate and treacherous a disease Pachymeningitis is, and to it seems to appertain the peculiarity of repeated relapses, with increasing severity.

That the inflammation of the dura mater had passed over to the pia mater, is pretty clear.*

* The proof, to the author's mind, that the inflammation had passed over to the pia mater, must be sought for, (as it was by him mainly derived,) in his theory of insanity. The psychological symptoms in the case satisfied him that the pia mater was involved in the disease. We may venture to doubt whether, had this been the fact, the victory over which he laudably exults, would have been gained.—*Translator.*

The case teaches us that, in paralysis of some of the brain functions, among which we may reckon on the very difficult swallowing observed towards the conclusion, we should not always hold that disorganization has taken place; and the same may hold good with respect to the aberration of the mental functions.

As the congestion and inflammation advanced to the cortical layers, and even to the deep parts of the brain, functional disturbances were exhibited, but the disease had not gone so far as disorganization. We have here, then, a new proof that the brain substance is tardy in taking on inflammation.

It is remarkable that in the outbreak of the disease, the attacks seemed to commence with a fixed type in the symptoms, and to yield to quinine. After progress, it was otherwise. I have been led to refer to another case, in which I was called in, and in which the severe headache yielded to quinine. After a couple of days the headache returned in periodic attack, and although I conjectured an existing Pachymeningitis, I decided on repeating the quinine, in conjunction with leeching, and a blister to the neck. This patient lived out of the city, and on my second visit I found him moribund.

Dr. Roelandt's case further shows, that leeches ought to be applied as near as possible to the affected part. Leeching and a blister on the neck, in the beginning of the treatment, had done no good—on the other hand, leeches on the forehead, (except, I must confess, the last time,) and still more, the leeches in the nose, because of the direct derivation from the affected part, did good. Had the inflammation been more in the posterior region of the head, then blood cuppings of the neck would have been more suitable.

The benefit of intense derivation in the vicinity of the diseased part, was here fully established. I cannot ascribe the cure to the small quantity of the sublimate taken by the patient. During the employment of this medicine, his condition was bad enough. When the large blister, covering the whole forehead, operated intensively, then, first, the inflammation of the dura mater, with all its train, passed away.*

The curative powers of such derivatives, as well as the powerful depressive action of the tartrate, have been experienced by me in two cases, which I will here allude to.

A woman had Pachymeningitis with severe pain; epileptic attacks gradually presented. Leeches were repeatedly applied, and an issue on the top of the head

* It is doubtful if many of Van Der Kolk's readers will ascribe so little value, in this case, to the corrosive sublimate, or so much to the leeches in the nose. As to the disappearance of the headache after the blister on the forehead, it was a very gratifying fact; but it may be questioned whether it would be found a constant one in similar cases. It is to be remembered that the headache is recorded to have gone off completely on several occasions in the progress of the case. What prevented its return on the last occasion? That salivation was not produced by the mercurial is no proof that it had not produced an important alterative effect; and if this effect was produced, certainly it was the most important part of the treatment. The author tells us that the patient's condition during the exhibition of the sublimate "was bad enough," (schlimmgenug.) This is very true, but this bad condition existed before the use of the sublimate, and did not improve for some time after. Certainly the long continued use of the tartar emetic had much more to do with the creation of the patient's "bad condition" than the sublimate; and it is very unfair to charge the latter with the "bad condition" existing at the commencement of its employment, even though this condition appeared to become worse for a few days.—*Translator.*

was kept open more than a year, and produced a perfect cure. A purulent discharge spontaneously arose in the nose, and her condition improved under it.

The second case occurred also in a woman; the inflammation of the dura mater and the severe pain, which had been mistaken for rheumatism, were here presented above the left ear.

An issue, which suppurated freely, was established, and this aided by repeated application of leeches, brought the long-wearing disease at last to a favorable termination. On more than one occasion it was accompanied by cerebral symptoms. A purulent otorrhea took place in this case, but left no deafness behind it. In both cases several marked relapses took place.

According to my experience, which has not been limited to the preceding cases, idiopathic Pachymeningitis, in which neither external injury, nor syphilitic disease, underlies, is by no means to be regarded as of so unfrequent occurrence, as we find stated in authors. I believe the disease is generally mistaken, and, owing to the regular intermissions, it is regarded as a masked fever, (*febris larvata*,) or more generally, perhaps, as cephalic rheumatism.

At the first glance, it may appear strange that this inflammation should signalize itself by such intense painfulness. Let us however reflect, that the *dura mater cerebri* consists of two membranes, the outer of which represents the periosteum, with which the *dura mater proper* is united. The *dura mater* has this great painfulness under inflammation, in common with the periosteum on other bones. The *dura mater* of the vertebral canal, farther separated from the periosteum,

has, according to my experience, much less pain under inflammation, than the dura mater cerebri.*

Degenerations, ossifications, and even inflammations of the falx cerebri, appeared in two cases which I met with, to run their course without severe pain. In the spinal canal indeed, an isolated inflammation of the dura mater seldom occurs, and consequently, we have few distinctive observations on this form of disease. At all events, I have not observed the occurring pains in such severity; but it is possible they may have proceeded from other parts.

If the disease takes a chronic course, during which the dura mater becomes inseparably adherent to the skull, then the severe pains do not always occur. So it happened with the old man of 72 years, in whom the skull could not be separated from the dura mater, and yet no headache had been present.

The intermittence, which sometimes as in intermittent fever, presents itself in definite periodicity, though mostly irregular in this respect and with longer free intervals, is very peculiar.

The accordance between the dura mater and the periosteum of other parts, is in this instance, again manifested to us. In periostitis the pain generally occurs most strongly during the night. In other authors mention is also made of the intermittence of the symptoms of this disease, (inflammation of the dura mater.)

We find numerous observations of the sort in the celebrated work of Lallemand (*Recherche sur l'encephale*, etc.)

* I have had under treatment a case of inflamed dura mater spinalis, which certainly had as severe painfulness as any of the cerebral order could have.—*Translator.*

In every acute cases, however, these intermissions appear to fail, or perhaps, occurring at the outset of the disease, before the medical treatment commences, they may not be observed.

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1. The operations of the New Jersey State Lunatic Asylum, for the year 1865, were as follows: Patients remaining Dec. 31, 1864, 333; received during the year, 196; total under treatment, 529; discharged, recovered, 72; improved, 53; unimproved, 4; escaped, 2; died, 31.

Total, discharged, 162. Remaining, Dec. 31, 1865, 367.

We learn from Dr. Buttolph's Report, that the Asylum has accommodations for 300 patients. Sixty-seven more than the proper number, it appears, were in the house at the close of the year. Dr. Buttolph is fully aware of the objections to over-crowding, both from hygienic considerations and the impossibility of a proper classification. He has acquiesced, however, in this excessive accumulation from the urgent desire manifested by the public authorities and by the friends of the insane to have them received into, and retained in the Asylum, if not fully restored; and also from the prospective completion of additional buildings for their accommodation at no very distant day. By the enlargement alluded to the capacity of the Asylum will be increased to five hundred patients, which, the Doctor thinks, will meet the requirements of the State for several years to come, and will accommodate as many patients as it will be advisable to assemble in one institution.

The facts relating to this enlargement of the Asylum are highly creditable to the Legislature of the State, and go far to support Dr. Buttolph's assertion that, "probably in no State in the Union is the standard of public sentiment in this respect—appreciation of the ability of the institution to serve the public and readiness to improve its advantages—higher than in this." It is certainly a matter of congratulation that the Legislature was too wise to authorize a policy, recommended by the Managers of the Institution, permitting the discharge of incurables, and thus perpetuate the poor house system of provision with its well known enormities. The following extract from the Managers' Report will be read with interest:

At the last session of the Legislature, the managers in view of the crowded state of the Asylum, and the impossibility of admitting new patients, likely to be benefited by a course of sanitary treatment, applied for the passage of a law authorizing the managers to discharge patients deemed incurable, whenever the interests of the institution might in their judgment render it expedient. The Legislature, however, deemed it more advisable to enlarge the buildings, and passed an act appropriating sixty thousand dollars (\$60,000) for the erection of wings of sufficient capacity to accommodate one hundred and twenty additional patients, sixty of each sex. The Superintendent procured plans for the erection of a wing at each end of the old building, consisting of three sections forming three sides of a hollow square, which if carried out and completed, will afford accommodations for two hundred patients, or eighty more than was contemplated by the law of last winter. The female department being more crowded than the male; the managers conclude first to erect the wing at the end occupied by the women. Of this wing two sections are enclosed, and the foundation walls of the third raised to the surface of the ground, and securely covered so as to protect them from the weather. The last section can either be pushed forward to completion during the next summer, or the foundations can be secured and remain in their present condition until such time as the Legislature may deem it expedient to finish it according to the plan adopted. If both wings are built upon the plan and of the dimensions proposed, it will be necessary for the Legislature to increase the appropriation for the erection of the buildings to at least one hundred thousand dollars (\$100,000).

The managers were led to adopt the plan above mentioned, as it combined more advantages than could be secured in any other way, and the buildings when thus completed, will furnish ample accommodations for five hundred patients, quite as many as should ever be assembled in one institution. So that any further enlargement in addition to that now contemplated will never be advisable. The managers desire to submit the whole question to the decision of the Legislature, who can in their wisdom either increase the appropriation or direct the proposed extension be curtailed. The managers would respectfully request all the members of the Legislature personally, to inspect the present building as well as the plan adopted for the extension, so that they may be enabled to decide the question with a due regard to the best interests of the institution, and of that unfortunate

class for whose benefit it was founded. Of the appropriation made by the Legislature, but nineteen thousand dollars (\$19,000) have yet been drawn by the Commissioners appointed to superintend the erection of the buildings; the whole of which has been expended. The interior work on the sections now enclosed will be prosecuted as rapidly as possible during the winter, and the wing for the accommodation of the men commenced early in the ensuing summer, if the necessary appropriations are made for that purpose. The planning of the building and supervision of the work in all its details have been performed by the superintendent without the employment of an architect, thus saving very considerable expense to the State, but at the same time increasing in a great degree the arduous labors of the head of the institution.

2. Dr. Rodman, of the Western Kentucky Lunatic Asylum, furnishes the following statistics concerning the operations of the institution under his charge for the year ending October 10, 1865: Remaining at date of last report, 123; admitted since, 59. Total, 182. Recovered, 18; died, 19; eloped, 1; unimproved, 1. Total, remaining, 143.

We learn from the Report that the institution has had increased facilities for the accommodation and treatment of the insane during the past year, by the completion of two wards which are being rapidly fitted up, and that additional wards are in process of construction. With these facilities Dr. R. hopes that it will now be long before he is called upon to refuse applications for the admission of any that are fit subjects for Asylum treatment; and makes the following pertinent remarks touching the early treatment of the insane, which are borne out by the experience of all:

Asylums built by the State are rarely or never erected until the most imperative necessity compels. The claims of the insane are ignored until their numbers are so great that provision for their wants

becomes a necessity no longer to be overlooked, and society clamors for protection from the dangerous violence of the excited lunatic.

After the establishment of a hospital has been determined upon, some years usually elapse before its completion, during which time those awaiting admission fall into irremediable disease of both body and mind, and, when received, afford but small prospect of long life, and none of mental restoration. This accounts for what otherwise might lead to unfavorable comparison of the results obtained in new hospitals and in those that have existed long enough to absorb the chronic element of the insane population, and to receive only such as afford a reasonable prospect of restoration.

The following remarks of Dr. Rodman made in anticipation of the probable visit of cholera, are pertinent, and we commend them to the careful consideration of all similarly situated :

In view of the possibility, or rather probability, of an invasion of cholera, I am now taking steps to put the Asylum in the best possible order to resist it, which is done by perfect cleanliness of grounds as well as house, and by such means as will bring our patients up to the highest attainable condition of general health, which is, after all, the most reliable safeguard against all diseases. I trust these objects have never been lost sight of ; but anticipated trouble makes us more keenly alive to our duty, and acts as a powerful incentive in the furtherance of such hygienic precaution as will render us less liable to reap the bitter fruits of neglect.

3. The general statistics for the two years embraced in Dr. Stribling's Report are thus stated :

Number of patients in Asylum at the commencement of the two years, 331 ; admitted subsequently, 93 ; total under treatment, 424 ; discharged, recovered, 41 ; improved, 7 ; unimproved, 1 ; eloped, 1 ; died, 66 ; remaining, 307.

The attention of the Governor is called to the large number of patients—111 in the last two years, of which 96 remain in the institution, from the State of West

Virginia; and the desire is expressed that some arrangement may be made with the latter commonwealth for their support for such time as they may be permitted to remain in the Asylum. Dr. Stribling thus alludes to some incidents of the past:

During most of the period embraced in this report, the institution was, of course, exposed to trials and difficulties incident to a state of war, and its inmates subjected to privations, in common with families and individuals all around us. The blockading of ports, demands for the sustenance, etc., of the armies, activity and vigilance of impressing officers, depreciation of the currency, and the partial failure of crops, conspired to render it, at times, almost impossible to procure food and raiment. Groceries and other supplies, usually deemed *essentials* in the domestic economy, assumed the place of *luxuries*, and these latter utterly disappeared. Thanks, however, to a kind Providence, the efforts of those upon whom devolved the labor of procuring supplies, were so far blessed that we do not believe a single member of our extensive household suffered at any time with hunger or cold. It was most gratifying, also, to witness with what cheerfulness all (with but few exceptions) submitted to the necessities of their position.

The nature and purposes of the institution seemed, throughout the protracted strife, to be recognized and appreciated by the contending hosts. The grounds and inclosures were for the most part unmolested, the buildings carefully guarded, and the privacy of occupants thoroughly protected. We regret exceedingly having to record the following exception: On the 4th of March last a detachment from General Sheridan's command made an assault upon the meat house, flour house, store room and other out buildings, bearing off and destroying about 180 barrels of flour, 10,600 pounds bacon, 300 bushels corn—a considerable quantity of hay—135 bushels rye and oats—wagon and carriage harness—50 pairs coarse shoes—many articles of wearing apparel from the laundry, and 3 valuable mules. I promptly and earnestly announced to the officer in command the character and object of the institution, cited the number of the unfortunate insane under our care, apprised him of the difficulties we had encountered in obtaining these supplies, and the danger that, if removed, they could not be replaced—but without avail! It is gratifying to add, that none of this party ever intruded within the build-

ings occupied by patients of either sex—a happy circumstance! for which I felt well assured, from *careful observation*, we were more indebted to the forbearance of the privates than to any restraints imposed by their officers.

4. Dr. Choate reports 363 patients remaining in the State Lunatic Hospital, at Taunton, on the 30th September, 1864: admitted since, 197; making a total of 560 under treatment for the year ending September 30th, 1865. There were discharged, recovered, 89; improved, 44; unimproved, 48; died, 32; remaining, 343.

Dr. Choate refers to an experiment about to be made, on a small scale, in the State of Massachusetts, with an Asylum for the incurable State-patients.

In view of the fact that the number of lunatics to be provided for by the public institutions of the State is already largely in excess of their utmost capacity, the question has been seriously agitated, whether a certain class of those dependent upon the State for maintenance might not be cared for in a cheaper institution; and the experiment of doing so will soon be tried on a small scale in the new building in the process of erection at Tewksbury. Without doubting in the least the abstract principle, that a first-class institution presents advantages nowhere else to be obtained by any class of the insane, and that it is somewhat dangerous to lower the standard of provision and care for any portion of them, yet, as a practical matter, and upon the principle of doing the most good we can with the means at our disposal, the wisdom of removing a portion of the harmless and incurable State patients to an institution where they can be provided for more cheaply, cannot, I think, be doubtful. If they are suffered to remain in the hospitals, they injure their operation, and cripple their curatives influences; if they are placed in the almshouses, they and the ordinary inmates exert upon each other a reciprocal influence the most injurious. To build new first-class institutions for them would swell still further the already extraordinary demands upon the public purse. The experiment which is about to be tried seems, therefore, to be called for, and will, it is to be hoped, prove successful. We have the expectation of removing during the coming year, to the new receptacle, such a portion of our harmless incurable State patients as

may seem to be our proportion; which will undoubtedly further increase the usefulness of this institution.

Dr. Choate thus remarks upon the causes of insanity :

Inasmuch as persons who have once been insane are too apt by the injustice of the world to fail to regain that social and useful position which they before held, it cannot be doubted that the study of the prevention of insanity is more important than the study of its cure. And in entering upon this study, the first point, of course, is to learn the causes of the disease. In preceding Reports much has been said concerning its exciting causes, and the power which individuals generally have, by a proper regulation of life, to ward off its attacks. Although they do not appear in the foregoing table, there can be no doubt that the study of the predisposing causes is equally important with that of the immediate and exciting. In the large majority of cases, the system is previously prepared to yield to the exciting influences undoubtedly stands hereditary predisposition. The question whether any near relatives have been insane, is comparatively seldom answered in the negative. The inquiry as to how hereditary tendency is formed, is the most important one in connection with the whole subject of insanity. That hereditary predisposition, like the large portion of the exciting causes, is originally within the control of the individual, and is produced by some violation of the laws of nature, seems in the highest degree probable. Indeed it is by no means unlikely, that the same causes; the same violations of nature; the same wrong way of life, not carried far enough in the first generation to excite disease, may in the second or third or farther on, the same tastes and habits being transmitted, be finally sufficient by accumulation to produce it, or to produce in a whole family a condition of the constitution which will make them an easy prey to slight exciting causes of disease. And in this manner a man's sins and errors may most emphatically be said to be visited upon his children's children. Parents may unquestionably do much by a carefully considered plan of education, and by guarding their children closely from their own errors, towards warding off family diseases, and even towards breaking up hereditary tendencies. It is a most instructive fact, that in whatever direction we pursue our investigations into the causes of this direful disease, we must inevitably be brought to this same conclusion; the necessity of pursuing more closely the laws of nature;

of obeying more strictly the dictates of a pure and enlightened morality.

5. Dr. Rockwell, of the Vermont Hospital for the Insane, furnishes the following statistics of the institution for the year ending August 7, 1865: Remaining from 1864, 458; admitted during the year, 144. Total, 602. Discharged, recovered, 55; improved, 14; not improved, 11; died, 42.

Speaking of the causes of insanity, the following judicious remarks are worthy of attention:

The want of proper or suitable mental and physical education frequently lays the foundation and prepares the way for insanity. Physical education is all important for mental as well as physical labor. For any great mental exertion it is desirable that a person should have a sound mind in a sound body. Whatever promotes the general health also promotes the strength and energy of the mind. Without health it is nearly as difficult to perform mental labor for any considerable time as to perform physical labor without it. A proper exercise of the mental or physical system, imparts strength, energy and power to each; and each system is weakened by the excessive use, or by the neglect of exercise of either. The youthful brain should not be overtaxed with studies which require too much mental labor. On the other hand, a judicious mental exercise is necessary for healthy mental exertion. Avoiding physical exercise will never strengthen the physical system—so the unemploying of the mind will never qualify it for healthy exercise. One predisposing cause of insanity is the excessive mental labor in the process of education. It is rare that insanity is induced in childhood, but over exertion produces that morbid condition of the brain and nervous system that sooner or later will result in insanity by apparently slight and insufficient causes. It is a fortunate circumstance that most children have not sufficient fondness for study to have their minds or brain receive an injury. But there are cases in which excessive mental labor proves injurious if not fatal.

6. The first Report of the West Virginia Asylum is chiefly occupied with matters pertaining to the construc-

tion and finances of the institution. We are glad to see that the work is sufficiently advanced to permit the reception of 21 patients. Dr. Hills, the recently appointed Superintendent, after alluding to his two months service and consequent want of material for a report, goes on to say :

If it were worth while, I *could* dwell on the gratifying topic of a new State, (itself only just fledged,) while under the pressure of difficulties inseparable from the establishment of its own existence, starting out so promptly in the benevolent enterprise of providing for its suffering people. Perhaps nothing marks the progress in civilization so much as enlarging and widening the means of relieving the distresses of humanity, and there is no one direction in which these distresses and misfortunes are so conspicuous as in the loss of our reason—the obscuring of our intellect—the darkening of the very soul. What is the most abject poverty in comparison ?

“ Who steals my purse, steals trash.”

What is blindness, or what is deafness, but the loss of a single *one* of the many senses with which we are endowed for our comfort and enjoyment? “Madness” combines *all* the misfortunes with which humanity can possibly be burdened. In that there is *blindness* to all the lights of superior intelligence—*deafness* to all appeals of reason, and *poverty of mind* is the sum of all deprivation. In proportion as is the magnitude of this affliction, compared with others, so is the importance of the charity for its relief. No other one has equal weight—none should take precedence—and the State of West Virginia has done wisely, nobly, in thus promptly providing for this class. For another reason is this charity paramount to all others. Blindness is incurable, and long years of special education will not restore to vision one scintillation of light, or impart to its proper sense the charms of beauty. The deaf mute can never be made to hear the melodies of this world, or give voice to thought; but, thank God, insanity *is curable*, and the darkened mind *may* be made to see “the silver lining of the cloud,” and receive the full light of former intelligence.

From one-third to three-fourths of all the insane placed in properly appointed asylums, are restored to their reason, and sent home to

resume their duties in their several spheres. In proportion as they are treated *early*, are they likely to be restored, so that with early application of enlightened means, from sixty to eighty per cent. are restored. It is upon this point, more perhaps than any other on this subject, that public impressions are wrong, and that enlightenment is needed. Insanity is in reality as curable as most other diseases, as curable, for instance, as typhoid fever, pneumonia, dysentery, scarlet fever, etc., and much more curable than dyspepsia, consumption, small pox, etc. The often quoted line,

“Who can minister to a mind diseased,”

was written before the day of rational, enlightened treatment of the insane. If it had not been, it would never have been penned, as it implies what is not true. Mental disorders are the manifestations of physical derangements, and generally such as are amenable to treatment. In proportion to the effort that is made, and also the extent and variety of the means provided for the judicious care of the insane, as well as their early application, are the number of recoveries, and hence, what may on slight consideration be thought expensive arrangements, are truly the cheapest. An *uncured* case is a dead weight upon the public, whether in or out of an asylum, and continues so to the end of life. A *cured* case is ordinarily restored in a few months, and is a burthen for only that short period. One case not restored (perhaps for the want of proper means at the proper time,) may, therefore, cost more than a dozen recovered cases. Hence the real economy of having the most perfect, or a first class hospital for the insane, provided with the best appointments for the comfort, convenience, contentment and happiness of the patients; means of exercise, of amusement, occupation and diversion of mind. The expenditure of one dollar in this direction, if instrumental in curing a case of insanity, will save the expenditure of *ten or twenty* towards maintaining that case through life, should it become incurable, from the absence of those means.

7. The statistics of the Dixmont Hospital for 1864, as furnished by Dr. Reed, are as follows: In hospital January 1, 1864, 130; received during the year, 104. Total, 234. Of these 36 were discharged, recovered;

18 improved ; 12 unimproved ; and 10 died. Total, 76. Remaining January 1, 1865, 158.

Dr. Reed refers to the influence of the late civil war in the production of insanity, and with many others is disposed to think that this should not occupy a prominent place in its causation. He condemns most justly a practice which we believe from experience is altogether too common, viz: that of placing idiot children in the hospital, as insane patients, as a convenient mode of disposing of them ; and where they are not only injured themselves, but become detrimental to the adult population. He also condemns the practice of committing those to the asylum who have been guilty of great crimes, and subsequently become insane, as greatly injurious to the feelings of many who are innocent of all crime. The Doctor remarks as follows on this subject :

The admission of such patients into any hospital is a serious evil in other respects. The quiet, inoffensive patient cannot be exposed to the attacks of an infuriated homicide, nor can valuable property and the lives of a household be at the mercy of the maddened incendiary. Hence the necessity of establishing for such persons, when received, a kind of discipline that is totally at variance with the spirit of the institution, and gives to what was intended as a "Home for the Unfortunate," to some extent the characteristics of a prison. That the *criminal lunatic* should have all the medical and moral treatment necessary for his restoration, is freely admitted ; but justice and humanity demand that it should be given to him without sacrificing the feelings, endangering the lives, or prejudicing the recovery of the *innocent insane* by such unpleasant and injurious associations.

8. Dr. Chapin of the Kings County Asylum, Long Island, thus sums up the operations of the institution under his charge for the year ending July 31, 1865 : The number of patients under treatment was 677 ; of these 263 were admitted, and 245 were discharged. Of

those discharged, 110 were recovered, 46 were improved, 14 were unimproved, and 75 died.

Dr. Chapin remarks :

In the treatment of insanity it is of primary importance to know whether there be any predisposition to mental disease in the family of the person afflicted ; but among such families there is often evinced great disinclination to acknowledge the fact. This proceeds, doubtless, from the natural aversion of admitting—even to one's self—the inheritance of a tendency to any unsoundness, especially of the mind ; and in the latter case from fear lest the circumstance, becoming generally known, should materially affect their social relations. Many persons have therefore been doomed to hopeless insanity by reason of a forced seclusion at home, who might have recovered had they been placed in a proper asylum at the commencement, or during the curative stage of the disorder. Although mental derangement is more common to those in whom there is a congenital predisposition to the disease, the proportion thus afflicted, when compared to the vast number who inherit something of this tendency, is so small as to divest the fact of any alarming significance.

Serious harm often results from allowing the mind to dwell upon this matter of hereditary transmission of disease. Under the stimulus of an over-excited imagination, almost any disorder to which there is a constitutional liability may be aroused, which otherwise might have remained for a long time, perhaps forever, dormant. Especially is this true of mental disease, which, there is little doubt, may be produced in the manner above stated.

9. The report of Dr. Peck, of the Central Ohio Lunatic Asylum, aside from the statistical tables, is mainly devoted to an exposition of the repairs to buildings, and to improvements in the grounds, and domestic arrangements of the house.

The statistical tables have been prepared with much care and pains, and are valuable as well as interesting. This applies especially to the larger table, entitled a General Summary of the Statistics of the Central Ohio Lunatic Asylum for 27 years. There is also a table

showing the per centage of recoveries and deaths in the same time. A table showing the attributed causes of insanity in all cases admitted. A table showing the diseases of which patients died. A table showing the duration of insanity before admission in 1865, and a table showing the number in which the disease was hereditary in proportion to the whole, and also the proportionate number of suicidal and homicidal cases.

The statistics of admission and discharges for 1865 are as follows: In Asylum November 1, 1864, 265; admitted during the year, 188. Total under treatment, 453. Discharged, recovered, 77; improved, 27; unimproved, 43; died, 29. Total, 174. Remaining November 1, 1865, 279.

10. Dr. Langdon, of the Longview Asylum, reports as follows: At the date of our last report we had remaining in the institution a total of 367 patients. Received during the year, males 73, females 90. Whole number treated, 530. Discharged, cured, 90; improved 31; unimproved, 3; died, 30. Total, 154. Remaining at end of the year, 376.

In relation to the supposed increase of insanity by the war, the experience of Dr. Langdon corresponds with that of many other observers. He remarks as follows on this head: That some have been made insane by the distresses and accidents of war is undoubtedly true; but the increase in the number of our inmates is owing, in the main, to the operation of more common causes. Prominent among these, the Doctor thinks, is the excessive use of alcoholic drinks. The general health of the institution is reported to have been good.

11. The number of patients under treatment in the Government Hospital for the Insane, Washington, D. C., on the 30th of June, 1864, was 351. Admitted during the year ending June 30, 1865, 515. Whole number of patients under treatment during the year, 866. Of these there were discharged, recovered, 348; improved, 101; unimproved, 9; died, 147. Remaining June 30, 1865, 261.

From the Report of the Board of Visitors we take the following highly interesting extract :

The admissions this year, five hundred and twelve (512) altogether, exceeded those of the previous year by six (6.) While the army and navy furnished nearly eighty-three (83) per cent. of the whole admissions, the number of military patients received was twelve (12) less, and the number of civil cases, including rebel prisoners, eighteen (18) more than last year.

Though the active operations of the war continued through most of the period embraced in this report, it will be seen that it exhibits the commencement of a return towards the old ratios which the military and civil cases bore to each other. The current year will doubtless exhibit a further movement in the same direction; but it is not probable that any generation of living men will witness the preponderance in our wards of the civil over the military cases which marked the status ante bellum.

It is an equally extraordinary and significant fact that the number of civil cases received into the institution during the four years of the war has exceeded the admissions during an equal preceding period only ten (10) per cent., notwithstanding an estimated increase of the permanent population of the District of one hundred (100) per cent., and two enactments by Congress—one providing for the care in the National Hospital, during the war, of all transient insane persons found in the District without the means of self-support, and the other making like provision for the same period for all cases of insanity occurring in any part of the republic among the civil employés of the quartermaster's and commissary's departments of the army.

This evident diminution in the relative prevalence of insanity in the District accords with the history of the disease throughout the

loyal States; and it is thought to show that the mind of the country was raised by the war to a healthier tension and more earnest devotion to healthier objects than was largely the case amid the apathies and self-indulgences of the long-continued peace and material prosperity that preceded the great struggle. Whether or not a kind of mental collapse will follow a return of peace, and be attended with an increase of mental disease, will depend upon circumstances which we cannot pretend to definitely foresee. If it unhappily should, the truth of this theory would be demonstrated beyond a question, and the old notions—doubtless true as observed at other times and under other systems of government—of the effects of violent national struggles upon the psychological condition of the peoples affected by them, entirely reversed as applied to the citizens of the North American republic. It is but a slight license to say that the nation laid down its life to save it; and that the national mind rapidly acquired a firmer strength and a higher tone amid the harrowing incidents of such a gigantic and all-pervading strife and sacrifice, must be accounted one of the most remarkable and interesting events in the mental history of our race! But, after all, the same natural law to which the nation appears to owe an increase of mental strength amid a sudden, vast and unprecedented expenditure of it, underlies some of the most familiar observations in psychology. The popular idea that weak and indolent minds in civilized society enjoy comparative immunity from derangement, is an erroneous one. All weakness invites disease, while strength repels it; and activity is a condition of strength. There is more insanity among the hinds and drones of mankind than among the Newtons and Websters. The capacity and application of philosophers and statesmen are associated with a strength and tone of the brain and nervous system which not only repel disease, but afford the innervation necessary to the vigor of the bodily functions. There are fewer dyspeptics among scholars than among unlettered men. It is true that poets—a class of most intellectual men—and madmen are thought to be allied; and it may be so. The mental constitution that affects the poetic fervor is not always—perhaps not generally—what is called a well-balanced one. Besides, the frequent exercise of the imagination in the conception of poetic images is apt to develop into inordinate activity a power of the understanding, especially when it is originally in excess, that is most prone to confound the ideal with the real, and thus establish one of the forms of the incipency of insanity.

The whole number treated in 1864-'65 was eight hundred and sixty-six (866) against seven hundred and eighty-seven (787) in 1863-'64. As the number of admissions was nearly the same in each of the two years, the excess of seventy-nine (79) treated this year was mainly due to the greater number in the house at the beginning of this than at the beginning of the preceding year.

The recoveries here reported were all, it is believed, genuine restorations to the normal mental state of the respective individuals. There were nearly fifty-eight (58) per cent. of the discharges, including deaths, and a little more than 40 per cent. of the whole number under treatment during the year. The proportion of recoveries was somewhat less during the last two than it was in the first two years of the war. The high proportion of incurable cases among the soldiers who have formed so large a moiety of our population during the war, and the payment of bounties for recruits, began at the same time. The relation that those concurrent events bore to each other is obvious. The various bounties, particularly the large sums paid for recruits during the last year of the rebellion, stimulated the cupidity of recruit and substitute brokers to the exercise of an ingenuity and perseverance, and to achieve a success, in imposing upon the army senility and childhood for vigorous manhood, and imbecility for soundness of understanding, which, had they been displayed in the genuine service of their country, would have commanded the blessings of a heroic patriotism. It was found that recovered soldiers discharged from the hospital and service, and paid off, and left to journey to their homes by themselves, were so frequently the victims, while on their way, of the diabolical arts of "drugging" and robbery, and then of literal sale as recruits or substitutes, that no such patients were permitted to leave the institution during the last six (6) months of the war, except under the personal protection of friends or officials. The fact that nine (9) natives of Canada were admitted to the hospital during the period under review, while only two (2) were received during its previous history of nine (9) years, affords ground for the suspicion that our political neighbor on the north parted with some of her dependent population at a handsome premium. We could write the current history of several of the large alms-houses and municipal institutions for the insane from the declarations of patients received into the hospital during the past year.

The same causes that have slightly reduced the proportion of recoveries have increased the number in the table of discharges classed

as *improved* and *unimproved*. The most of the improved cases had become mentally as comfortable as they were when cruelly imposed upon the service, or had in any probability been for many years, and a large proportion of them were taken to their homes by relatives or friends, where they could be usefully employed and enjoy a qualified liberty.

The discharge from the service of the few classed as *unimproved*, eight (8) out of nine (9) of whom were army patients, was accepted by friends who preferred to place them in the care of institutions near their distant homes.

The per centage of mortality this year was large, but, however much we may regret it, it seemed inevitable under the circumstances. Over seventy-two (72) per cent. of the deaths were in cases of chronic insanity, and in three-fifths ($\frac{3}{5}$) of the remaining cases the fatal event was due to morbid condition existing at the time of admission. By *inanition*, as an assigned cause of death, is meant the non-assimilation of food in consequence of a peculiar exhaustion of the vital forces. In these cases the mental disorder was not of an active and exhaustive type, and no acute idiopathic disease could be detected. The only exception to our remarkable exemption from local disease consisted in the communication of typhoid fever, with which many soldiers were admitted in the fall and winter, to some of the chronic cases already in the house, who, from defective innervation, offered but little resistance either to the invasion or progress of an asthenic disease; and for a few weeks the fever prevailed considerably in several wards on the male side of the house. That typhoid fever is in no sense an endemic disease here is shown both by its entire disappearance as soon as it ceased to be brought to us from the field, and by the non-occurrence of a single case in the women's wards, in which the mortality from all causes, during the year, was only between six and seven (6 and 7) per cent. of a population composed largely of chronic and infirm cases.

The population of the hospital at the close of the last government year was less than it had been at any other time for two years previous. This reduction was mainly effected by embracing the favorable opportunity which the return in June of so many of the different organizations of the army to their respective States afforded to send home in the care of comrades or officers, all recovered men, and most others who had evidently not become insane in the line of duty, and

would certainly be properly cared for either by their friends or the local authorities.

The admissions since the beginning of 1865-'66 have averaged about one a day. As the army becomes more "regular" and national in its organization, and the rank and file is recruited from the least inhabitative population of the country directly into the service of the United States, the soldier will have much fewer of those State ties and claims which have generally led to the early removal of the incurable volunteer to his home and its local protections. In this way it is expected that the present and future population will, as a rule, have a much more protracted residence in it than the volunteers had, and that the average number of inmates will soon equal, if not exceed, the highest number resident at one time during the war.

12. In the Eastern Kentucky Lunatic Asylum there were 241 patients October 1st, 1864. During the following year 59 were admitted, making a total of 300 under treatment. There were discharged, recovered, 26; removed, 2; eloped, 8; died, 14. Remaining October 1, 1865, 255.

Dr. Chipley's Report calls attention to the fact that the number of the insane is rapidly increasing. He believes with Esquirol that "insanity is a malady of civilization and that the number of the insane is in proportion to its progress." It becomes, therefore, a matter of vital importance to devise some method, by which this class may be provided for, consistent with proper economy and without lessening the chances of recovery, or, in any material degree, diminishing the comforts they now enjoy. After touching upon some of the plans which have been urged and the obstacles in the way of their success, he discusses the question of separate establishments for the curable and incurable. The accompanying extracts set forth the Doctor's views on this subject, and also his suggestions for a combined Hospital and Asylum arrangement to meet the existing want:

It has been suggested that we may economize by separating, in different establishments, recent and supposed curable cases from the chronic and supposed incurable. The question arises at once, what is to be the source of this economy? In what respect is the maintenance of the incurable less costly when separated from those whom we hope to cure? Is it not to be supposed that any one proposes to lessen, in these incurable establishments, the amount of food to be consumed, or to deteriorate its quality for the sake of cheapness. Nor can it be expected that anything can be saved on clothing, as this is, in all our State hospitals, plain and substantial, and only such as is necessary to the preservation of cleanliness, comfort, and health. Is the desired end to be accomplished by lowering the standard of professional supervision? Can this be done with justice to those whose incurability is only a matter of opinion? In many instances it is impossible to determine with certainty that one has reached that point which precludes all hope of restoration. Some, apparently the most hopeless, have recovered after years of confinement in modern hospitals. I have witnessed instances of the kind in this Institution, and I doubt not every gentleman in charge of a similar institution will confirm my observation by his own. In curative institutions the strictest attention is given to all inmates—hope lingers ever—the smallest spark of intelligence, even in the most forlorn, is discovered and appreciated, and every means is resorted to to fan it into a flame. In a house of incurables no expectations would be indulged, and such cases would almost certainly pass unobserved, and, if observed, the surroundings of the patient would be, in the highest degree, unfavorable to a happy issue. There would be no motive for that daily and intimate intercourse between the medical officers and patients which exists in our hospitals as at present organized.

The fundamental principle on which it is proposed to found these establishments will necessarily lead to enormous abuses—the more inevitable because their great halls and chambers will be filled exclusively with the humble, friendless, indigent insane. No merit will be sought or expected except in the small amount of money which may be made to suffice in keeping soul and body together. This principle will permeate every department. * * *

Many of the insane preserve unimpaired most of the mental faculties, and are as purely sensitive to the treatment they receive as any of the most gifted of our race. Some of them are persons of education

and refinement—reduced in circumstances, perhaps, in consequence of their misfortune—but still appreciate as fully as ever the ordinary comforts of life, and have as keen a relish for all the varied means of recreation and improvement which are liberally supplied in all of our curative institutions. How cruel it would be to banish such an one to the society of that horde of filthy and disgusting objects who would be sure to constitute the first instalment from our hospitals to the incurable receptacles! But the deprivation of physical comforts and mental recreation would be less torturing than the loss of hope. A large proportion, even of the incurable, in our hospitals, still hope on—hope ever. Every few days they witness the departure of some recovered patient happily on his way to a cherished home and loving friends. By the very act of sending him to the house of incurables you bid him hope no more—all earthly expectations are at an end—he feels himself consigned to a living grave, and that, too, where every movement is to be regulated, not by a consideration of what is necessary to his comfort and welfare, but by a nice calculation of what may be the least possible amount required to preserve life, and the most effectual means of compressing the greatest number of human beings into the smallest possible space.

If such a system is adopted, many, who are just able to earn a living, will refuse to allow a member of the family to be sent to the asylum. Learning that none but the poor, and those to be regarded as incurable, are admitted, every hazard will be braved to retain the afflicted relative at home. Unable to bear the expense of special attendance, cruel restraints will be resorted to, or the hours of labor may be infringed upon in giving personal attention, until the entire family is reduced to penury and want. No one can estimate the evil effect of a lunatic in a family of moderate means. His presence disturbs all domestic arrangements—banishes peace and all enjoyment from the family hearth—affects injuriously the temper and minds of old and young, and may even involve others in the same sad fate. When separate provision is made for the poor, many such cases will occur. There are many humble persons who are sensitive, and would not consent to commit their friends to such an institution. They know that no such institutions are managed with proper regard to the comfort and welfare of the inmates, and they will even do worse at home rather than submit to implied degradation. * * *

The scheme which appears to me to be the most feasible—free from the insuperable objections which attach to any of the exclusive

plans proposed—less liable to abuses and more economical than the system which now prevails, is an institution which shall combine hospital facilities for the treatment of the curable with an asylum as a place of refuge for the incurable. There is no incompatibility in these elements, and the union is favorable to the interests of all classes. I believe that the welfare of all classes of the insane would be promoted in an institution constructed to meet the wants and wishes of every grade of society. Every scale of accommodation should be provided, so that no obstacle to recovery, or to the enjoyment of the remnant of life, should exist from any violence done to the former habits or prejudices of those admitted. Nowhere should these accommodations fall below the standard which is designated by that expressive word—comfortable.

The insane cannot be made self-supporting, but their labor, properly directed, will contribute largely to their support, promote the restoration of many of the curable, and improve the health and add to the happiness of the incurable.

Here is precisely the point, and the only point, where I can discover any possibility of lessening the annual expenditure for the maintenance of the insane poor, if it is our purpose to treat this class of unfortunate people with humanity. Economy here happily coincides with the best interests of those concerned. Labor has been the lifetime habit of most of our subjects, and, without it, they become the victims of the most distressing ennui. Of course this system does not contemplate profit as a primary object—it is only incidental—the guiding star is the health, comfort, and happiness of those for whose benefit it is designed. The possibility of cure is never to be lost sight of; and hope is to be fostered to the last. * * *

I do not mean to say that such an institution is to be made a mere work-shop, even for those who are considered as incurable. Recreation is as important to the insane as occupation, and it should be as varied as the habits and tastes of those for whose benefit it is provided. The house should be made a pleasant home, adorned with all those simple and tasteful decorations which are commonly found in the houses of the classes to be treated. Useful and entertaining books, social entertainments, and innocent games of all kinds, pictures, music, &c., should be liberally supplied to engage the hours of leisure and divert the mind from its wayward fancies.

Large and handsomely cultivated pleasure grounds, made attractive by extensive and pleasant walks, and abounding with flowers, reach the heart and affections of the humblest, and are of essential service in the treatment of all classes of the insane.

An institution thus provided with ample means of occupation and recreation would possess at once the efficiency of a hospital for cure, and all the safeguards against abuses which it is possible to throw around an Asylum. It would combine in itself all the material and moral conditions which are required to assure persons, deprived of reason, curative treatment and the benefits of refuge.

The public interest in its welfare would be unflagging, because its wards would always contain persons in a process of recovery. There is, perhaps, no surer safeguard against abuses, that are liable to occur in institutions for the insane, than a knowledge, on the part of the employés, that some of their charge are recovering, and that they will be competent to give a correct account of what occurred during their illness, and of the treatment they received from those about them. While there are a few, even after recovery, who seem to labor under some delusion as to what happened during their sickness, most of recovered patients are reliable, and to such an institution is indebted for much of the character it sustains in the public estimation. This safeguard is potent for good in all curative establishments, but no such shield exists where all are incurable and none are considered reliable. There is a great gulf between the incurable and the public, which can be bridged only by the insane who are curable. The kindest friends too often lose all interest in those who are pronounced incurable; and this is emphatically so when they become inmates of an incurable establishment; and if it were otherwise, how is the treatment in such institutions to be ascertained? Those who misuse their charge are not likely to be communicative; the officers cannot be always at hand, and the testimony of the inmates is too apt to be colored by their delusions or influenced by the idea that they are unjustly held in custody, to have much weight. The cost of maintenance would be less than the aggregate cost of the two classes in separate institutions. It is an undisputed dogma, that a hospital for acute, or supposed curable cases, should not be constructed to accommodate more than two hundred and fifty patients. If strictly limited to this class of the insane, I am fully convinced that the number designated is too large. But if the features of a hospital and an asylum are combined in the same institution, the number of inmates may be very

properly increased to five hundred. As the number is increased, the cost per capita is diminished. The proposition to found establishments for incurables is founded on economical considerations alone. It is not pretended that either class will be benefited by the separation. On the contrary, it is conceded that the presence of quiet incurable patients, who have acquired habits of industry, order, and obedience, is of immense service in fixing the same habits on recent and curable cases. It is conducive also to economy. I do not entertain a doubt but that the corps of officers, and the number of personal attendants, required to take care of one hundred curable cases will discharge their duties more easily, and with more satisfaction, with the addition of one hundred and fifty incurables. I am sure if one hundred and fifty incurables were removed from this institution, and one hundred curables remained, it would not be practicable to make any reduction in the items of expense for salaries and wages; and if the places of those removed were filled with recent cases, these items would grow to enormous proportions.

The system of separate institutions will entail another expense not incident to that which proposes combination. The cost of transporting patients from one institution to the other, as they may be considered curable or incurable, cannot fail to amount to a considerable sum every year. There are incidental advantages connected with the combined system. The large number of patients that may be admitted multiplies the number of wards, and affords an opportunity to make a more extensive, and, of course, a more perfect classification; than which nothing contributes so much to the harmonious and quiet working of an institution for the insane. In such an institution the classification would be founded on the mental condition and habits of patients, and not on the doubtful question of curability.

13. At the date of the last report of the Pennsylvania Hospital for the Insane, there were 279 patients under treatment. Since which 231 have been admitted, and 206 have been discharged or died, leaving 304 under care at the close of the year. The condition of the discharged was as follows: Recovered, 102; improved, 40; unimproved, 26; died, 38.

Dr. Kirkbride offers these reflections with regard to the employment of the insane in laborious occupations :

It is really important that ample provision should be made, in connection with every hospital for the insane, for the mechanical employment of those patients who are likely to be interested in such pursuits, and whose mental and physical condition makes it desirable that they should have such forms of occupation. Much discretion, however, is always necessary in directing labor for the insane, and most, perhaps, when mechanical employments are engaged in. The medical officers alone can properly prescribe it, and they should always carefully observe its effects on the patients, and the mode in which they perform the work assigned them. All efforts to make the labor of the insane profitable to an institution are liable to render it a disadvantage, instead of a benefit, to the patients. If entrusted to ordinary persons, and with the understanding that the more profitable pecuniarily the work of the patients is made, the better their employers will be pleased, it is almost certain that not a few will be required to do more than is proper, and that uncomplaining persons will often suffer from attempting what is really beyond their physical capacity. This applies particularly to cases somewhat acute in their character, in which there is often a morbid activity and energy, but it is also true of the chronic and the demented, the very classes which are relied on to reduce the cost of taking care of the afflicted, when it is proposed to prepare separate institutions for the insane who are supposed to be incurable, and about which something more will be said in a subsequent part of this report.

It is obvious that few patients can engage advantageously in mechanical pursuits in comparison to those who may amuse themselves in taking care of the pleasure grounds or the vegetable and flower gardens, still there are some who seem to derive special advantage from the mental occupation required in the former, and cases are familiar to most of us, where, to exactly such agencies perfect recoveries seem to be attributable.

Our readers will peruse with much interest Dr. Kirkbride's opinions with respect to the care of the chronic insane :

Propositions have frequently been made of late to provide separate institutions for what are commonly called incurables, and it seems

only proper that the community should have the views of those whose official relations to this class have compelled them to reflect on the subject. For this reason, and also as a convenient mode of replying to frequent questions, reference is again made to this subject, which has already on more than one occasion been noticed in the reports of this institution. Before entering on any general discussion of the matter under notice, I would once more protest against the use of the term "incurables." There is no one wise enough to say, with absolute certainty, who among the insane are incurable. That can be decided by Omniscience alone. There is no fixed period when such a decree can justly be entered against the sufferers from insanity. Such a decision might often be serious in its results, and there could hardly fail to be produced a sadly depressing influence on any one of common sensibility on being sent to an "institution for incurables." As justly remarked by the editors of the *AMERICAN JOURNAL OF INSANITY*, over the entrance to such a building, Dante's inscription for the portals of another place might well be written, "All hope abandon, ye who enter here!" Every one with large experience will easily recall cases where perfect recoveries have taken place when least expected, long after all hope had been given up, not only after one year, but after many years' existence of the most discouraging trains of symptoms. It is a good axiom, that every case received into a hospital should be placed under treatment, and that the use of remedies should be steadily persevered in.

Some kinds of treatment should never be given up, if not to restore the patient, it should at least be to prevent a lower mental and physical condition. Medicine should be given whenever there is any indication for its use, and very often there is, even in the most chronic cases, but medicine is only one of a long list of means at our command. The other remedies, of a most varied character, which ought always to be found about a hospital for the insane, are, many of them, of a kind that no patient should be deprived of. Important and indispensable as these are for recent cases, their influence on the chronic is also almost uniformly favorable. The absence of many of these accessory means, as is pretty sure to be the case in any separate provision for the chronic insane, is one of the strongest objections to the introduction of such institutions. It is everywhere proposed that these should be cheap establishments, by which is understood, that they are to require little money from the public treasury for their support, and yet such may prove the very dearest kind of institutions

for any community. It is never economical to do wrong. The cheapest institution, even if its expenses are large, is that which carries out most efficiently the objects for which it was established—the restoration and comfort of its patients, the relief of the families of the afflicted, and the protection of the community—while an establishment which fails in these respects is a dear one, even if it takes not a single dollar from the pocket of any one, nor from the public coffers ; just as an inefficient officer, serving gratuitously, might be much dearer than a thoroughly efficient one with a liberal salary.

It is to be remembered that the chronic are not always the most unpleasant cases about a hospital, and, as a general rule, they are by far the least expensive to treat. The costly arrangements, the special attendance, nursing, and remedies, are particularly for the recent cases, no matter whether they are rich or poor, high or low in life, and of all levellers of artificial distinctions, insanity is one of the most thorough in its work. Wealth, talents, refined accomplishments, social position, no one or all of these are sufficient to maintain the distinctions which society recognizes, when our fellow men are laboring under some forms of mental disorder.

It is sometimes supposed that recent cases of insanity are injured by coming in contact with the chronic, but if this be so, it must be from a defective system of classification. As already intimated, chronic cases are often among the most intelligent and agreeable persons in an institution, while recent ones may be, and frequently are, among the most unpleasant and repulsive in their habits and actions. It would be pleasant in a town, or a section of a town, to live where there were only educated and agreeable people, none that were naturally vicious or had bad habits of any kind, where all were model Christian men, women and children, and where in our walks about the streets, we should meet only people agreeable in looks, manners and conversation. This happy phase of society, however, has not yet been reached anywhere. A hospital for the insane, properly organized with a good and extended scheme of classification, is somewhat like a square or block in a city. Each ward represents a family, and where those belonging to one family or boarding house are not expected to be looking too intently for the difficulties that may be occurring among their neighbors. So in walking along the streets, it is their own fault if their attention is directed especially to what is unpleasant, rather than to the agreeable sights that are constantly coming before them. It is rare that there is a square in any populous

city, where, at some time or other, persons are not to be met, with whom we do not care to associate, but whose presence there, if they are let alone, need not be any particular annoyance to us, and we do not complain that, in a lecture room, the whole audience is not composed of those with whom we would wish to be intimate.

The proper control of an institution for the chronic insane would require ability of a high order—even something more, perhaps, than for an ordinary hospital—for it would often seem to be labor without immediate results, a work of duty, that could only be expected in a high Christian character. The compensation for such services would not be less than for the care of a more interesting class of patients, and the same may be said of subordinates in every department of such an institution. Then, food and clothing would be required just as much for these as for any other class, and the supply of warmth and light for the building ought to be just as liberal. In what way, then, are these institutions for the chronic insane to be carried on at so little cost, except by taking advantage of the infirmities of the patients, and getting from them an amount and kind of labor for which their mental and physical condition will often disqualify them? Certainly this class of misfortunes appeal to the best instincts of our nature to protect those who suffer from them, from even the appearance of wrong.

The idea of making such institutions self-supporting by the labor of the insane, is a fallacy, that a very little experience, in this country, will soon demonstrate to the satisfaction of every political economist. Wherever the labor of the insane is made to produce such a result, there, I am confident, will be a fair field for investigation, ready prepared for some enterprising philanthropist, for there can hardly be a doubt but that heavy burdens will have been laid on the unfortunate, or that they have been subjected to uncalled-for privations.

All the advantages that can possibly be derived from institutions for the chronic insane alone, can certainly be had in those put up by the different States for both recent and chronic cases, and into which all classes of persons—not the poor alone, but the afflicted—are received. Connected with all such, there should always be an abundance of land for farming and gardening, and ample facilities for mechanical employments. The patients can be just as much in the open air as in any other situation, and when there, can have rational exercise and at the same time be under supervision of a far more efficient character than is likely to be secured in institutions for the

chronic alone. The advantages for amusement and pleasant occupation, when not in the open air, will certainly be greater and more varied, and the condition of the chronic insane is so diversified as to require much discrimination in their treatment.

Without reference to the protection of the community from the acts of irresponsible individuals, it is no favor, generally, to the chronic insane, to permit them to wander about at pleasure. This kind of liberty is often only another term for suffering and exposure, and they are saved from both, and have better health and much more enjoyment, by having their movements somewhat directed and controlled by intelligent Christian men and women, who practice that best of mottoes—best for hospitals, as for ordinary life, though it may not be always too well remembered—“All things whatsoever ye would that men should do to you, do ye even so to them.”

The idea of boarding the insane, with private families, in which there is no one with even ordinary qualifications for such a duty as would devolve on somebody, seems hardly worthy of serious discussion. To say nothing of the moral and sanitary objections to such a course, a much greater amount of physical restraint will obviously be necessary, than in any well conducted hospital.

The only proper mode of providing for the chronic insane, in my estimation, is for every State to erect just as many hospitals as are necessary to give to every insane person within its borders a chance to participate in the benefits which they offer. While these structures should have connected with them everything calculated to promote the comfort and restoration of the patients, not one dollar should be expended on what does not directly or indirectly contribute to these objects, and the propositions of the Association of Medical Superintendents, both in regard to construction and organization, should be fairly carried out. If it is desirable to provide for a large number in one locality, I would then recommend a separation of the two sexes, in the manner which I suggested to Mr. Sloan, the architect, of this city, when preparing plans for the Sheppard Asylum at Baltimore—which mode does not violate the propositions of the Association already referred to, even in regard to numbers, and which has some features that may be worthy of investigation by those engaged in providing the best accommodations for the insane, at the smallest cost.

It is often said that the people—the tax-payers—would not willingly submit to the burden of providing for all the insane, in properly

constructed and properly managed hospitals. There is, however, no evidence of this being so, coming from the people themselves. The people of this country have on many occasions shown their willingness to bear very heavy burdens when convinced that the cause was right and the money collected faithfully used. If the community can be taught that these institutions are specially for their own benefit, and will be economically built and managed, if they can see that they are made efficient for the relief of the afflicted, if they know how much more economical it is to cure a citizen, even in the costliest hospital, than to support him, and probably some of his family, in an almshouse, for life, hardly any one in this Christian land would be unwilling to contribute his share—exceedingly small as he would find it, if he would make the calculation—of what was required for the purpose. Those in quite moderate circumstances and the poor could hardly object to such expenditures, and the wealthy ought not to do so, for no one is so rich to-day, that some of his descendants may not require the benefits of this, unquestionably one of the most benevolent endowments of the State.

14. The general results of the year at the Massachusetts State Hospital, at Worcester, are thus stated: Patients in Hospital, October 1, 1865, 344. Admitted during the year, 221. Whole number under treatment, 565. Discharged, recovered, 105; improved, 58; unimproved, 28; died, 33. Whole number discharged during the year, 224. Remaining September 30, 1865, 341.

Dr. Bemis argues that the existing system of organization of hospitals for the insane, is defective, inasmuch, as it presents to all, whatever may be the grade of their disease, the same unvaried rule, the same unyielding routine. In the subjoined extract, he sets forth a plan for the reorganization of the Worcester Hospital, which he believes will remedy these defects:

During the past two or three years there has been a steadily increasing demand for larger and more commodious rooms and a higher style of accommodations than we can at present offer. For many years better ac-

accommodations have been needed for certain classes of patients admitted to this institution. The institution presents to all the same unvaried rule, the same unyielding routine. No matter what a person's previous habits and associations have been, when disease comes upon him and he is obliged to seek refuge in an asylum, he must take his place in a common ward, occupy a room eight feet wide by ten in length, and scarcely eight feet in height. If he has any society it must be the society of those assigned to his ward. The accommodations and conveniences of the ward at the very best are hardly sufficient to preserve the decencies of domestic life.

There is a class of patients in every hospital who require little or no restraint or seclusion. They cannot live at home or with friends; they need the assistance, guidance and support of a hospital or asylum; their friends are able and willing to pay for it; they are proper subjects for the guardianship and treatment of the hospital, and yet the hospital affords them no adequate accommodation or convenience.

There is that wayward, suspicious, troublesome class, many of whom belong to the higher ranks of society; they are querulous, critical and censorious; they cannot conform to the usages of any family circle; they disturb the peace of society; and at length are consigned to the custody and care of the hospital; but the hospital with its present arrangements cannot detain them with peace to its managers, or comfort to its other inmates.

There is a class of quiet, apparently harmless and industrious persons who need just that amount of guidance and direction dispensed in a well ordered hospital, but who do not require the existing arrangements for strength and security, and who would be further improved by some new arrangement, some modification of restraint, impossible at present. This large class, generally considered incurable, must continue to be subject to the care and control of the hospital, and might at a less expense be comfortably provided for in some other institution, where to custody, useful occupation, and medical care and control, might be added some of the comforts and pleasures of the family and home.

Convalescents, too, those whose minds are so fully restored as to render a further companionship with the insane irksome and injurious, but who are not sufficiently strong to return to their homes and resume the active duties of life without great danger of a relapse, should have some intermediate place between the necessary restraint of the hospital, and the danger of a too sudden return to excitements incident

to active life. Some resting place which shall make the passage of the convalescent from the confinement of the hospital to the freedom of society gradual and safe, and so afford time and opportunity for the weakened powers of the mind to become strong enough for the daily conflict of life, is one of the great and growing wants of this institution.

This hospital necessarily applies the same arbitrary rule to all classes of patients, and to every grade of disease; the same unsatisfactory relations exist for those who require all the tact, skill and strength of the institution, and those who only require the comfort, rest and peace of an asylum; its operation is that of a machine, bearing with equal, unyielding severity upon the mild and harmless, and the violent and dangerous, affording the same amusements and pleasures to the incurable and demented as to the most intelligent convalescent.

For nearly one-third of a century this institution has to a great degree answered the wants of this community, and fulfilled its duties the community know how well. Shall it be made to answer the growing demands of another generation of men? If so, it seems necessary at once to extend our plans, multiply our facilities, and improve our system, so as to afford to all the greatest possible chances for recovering, and the greatest amount of comfort to such as may not recover. Let us, if possible, establish a family circle for a few of the convalescent of both sexes, by opening a house and placing it under the care of a married couple of well tried, faithful, skilful attendants. Let us attempt the same for a class of harmless, industrious incurables, and also one for two or three of the more difficult, whose friends are able and willing to pay generously. Let us inaugurate some such plan, and quietly and steadily persevere in it until it shall prove a success. If need be, let us ask legislative assistance and direction, and thus commence under sanction of the law. If you ask how this can be accomplished? how, even the work may be commenced? several methods may be suggested.

First. There are in the immediate vicinage of the hospital, adjoining its grounds, several well constructed cottages now offered for sale, and some of which could, doubtless be rented for a term of years, if thought more advisable to so timidly begin the work. *Second.* The whole hospital property could be put into the market, and still occupied for the present, until a sum was realized, which would nearly pay for an estate, with new and appropriate buildings, perfectly adapted to the wants of the insane. *Third.* Twenty-five acres of the grounds

and gardens adjacent to the buildings, were last year appraised at one hundred thousand dollars; a sum which would go far towards the erection of new hospital buildings, and leave in a compact area eighty-five acres of the most desirable land belonging to the estate, on which such buildings might be placed. The site would be pleasant and healthy; overlooking the city and surrounding country, and affording a prospect of great beauty and activity; removed a little distance from the city, but easy of access. There are doubtless many other desirable localities. The hospital already owns this, and can spare the twenty-five acres for a capital upon which to work. On no condition, however, should any land be disposed of in any other arrangement for the prosecution of the plan.

I would recommend then, something like this: that the Trustees have power to put into the market, certain lands belonging to the hospital, and that they proceed quietly to remove the material in the present buildings, one wing at a time, to Chandler Hill, and there use it in the construction of new buildings, so far as it can be made available. The proceeds from the sale of lands, and such assistance as the legislature may grant, to be expended in carrying out the design. Let it not be understood that the site spoken of, is the only desirable one, or that there is none better. Within the limits of Worcester, and near to the town, there are others every way desirable, and one of which could have been purchased a few years since at a reasonable rate. Could this, or any similar plan, be adopted and carried out, a wide step would be taken in advance of any existing arrangements for the care and recovery of the insane. Will not Massachusetts take this occasion to consider the necessity and propriety of making such an arrangement for her most unfortunate children?

In the carrying out of this or any similar plan suggested by the foregoing remarks, a departure would of course be made from the general style and character of hospital buildings. There would be the central edifice; the hospital proper, in which would be placed all the cases of acute mania, the violent and dangerous, the suicidal and troublesome; having every arrangement for classification, and every convenience for the treatment of insanity; with large and airy sleeping rooms, and day rooms, and with improved facilities for bathing, and a more reasonable arrangement for water-closets. There would be, on one hand, a few cottages, plain, neat and convenient, for the quiet, harmless and industrious of both sexes; with workshops, where they could follow such industrial pursuits as could be made available,

with the laundry and bakery for the whole. On the other hand, there would be the residences of others, who would devote their time to the cultivation of gardens, in music, reading and writing, walking and riding, and such other light occupations and amusements as they were accustomed to follow when in health. Then, there would be the chapel and lecture room, in which there would be, at regular intervals, divine service and frequent lectures, sociables and reading clubs.

If the obstacles to a radical movement seem insurmountable, there can be no question as to propriety of leasing, with a view to purchase, two or more cottages in which to make the experiment in a small but safe way. Success in the undertaking seems to be perfectly sure, and there is no danger of encumbering the institution with any new burdens in assuming the responsibilities of the enterprise; on the contrary, we shall lighten existing ones.

At present, the rules and regulations relating to the hospital are, to a certain extent, arbitrary and unjust. The moment a man is placed in the wards of the hospital he is considered insane, and is, in the eye of the law, insane, no matter what is his real condition, or what the grade of his disease. All the civil difficulties of a case of insanity attach to him, and do not readily leave him. The moment he is thought to be well enough to return to his family, and receive the care and attention of his relatives and friends, he is said to be sane, to have recovered. He returns to the duties and responsibilities of active life at once, with no kind assistance, and with no protecting care. The beneficial influences of the hospital close, and he returns to the world, where his misfortune often operates strongly against him. Make the arrangement suggested, even by a small beginning, and some of the difficulties will be removed. Patients would have all the real benefits of home treatment, all the pleasures of the family circle, with suitable occupation, recreation and amusement, and much more open air exercise than can now be enjoyed. They would have the society and companionship of friends and relatives, with much more comfort, and would enjoy all the social ties in a more reasonable and generous manner. Above all, the restored would pass from the hospital to the world at large by gradual steps, and recover, one by one, his customary duties and responsibilities.

15. The Biennial Report of the Illinois State Hospital for the Insane contains the following summary of results: Number of patients in the Hospital, December

1, 1862, 302. Number since admitted, 408. Whole number treated since December 1, 1862, 710. Discharged, recovered, 159; discharged, unrecovered, by order of Trustees, 133; discharged, unrecovered, by mutual consent of Superintendent and committing parties, 48; discharged, unrecovered, but improved, 14; eloped, 13; died, 42. Total number discharged, 409. Remaining December 1, 1864, 301.

Dr. McFarland is always most happy in his delineations of the various manifestations of insanity, and particularly in his analysis of the more subtle phases of the disease. After a notice of the salient points of mania, acute and chronic, he observes :

My enumeration of the more striking forms of insanity, in their relation to an institution, would be incomplete if I omitted one, whose features will be but too well recognized by all who have had much experience in this specialty. It is not an important class from its numbers, as it constitutes probably not one per cent. of the admissions to any institution, and, as a high-pressure social system is a prolific source from which such cases emanate, they are less frequent here than where society is more luxurious and condensed. In these cases, the subtle unhinging of some radical constituent of the mental being, whose agency in the natural working of the machine is beyond our philosophy, produces a form of disease, at once unique, perplexing, and, in the highest degree, difficult to treat with satisfaction. The small apparent evidence of a departure from mental soundness, especially at only a brief observation, adds to the embarrassments attending the case, as the individual is ever ready to play upon the doubts of any who may question the fact of insanity. There is usually just brain excitement enough to give increased force and acuteness to every operation of thought, and those unaccustomed to mental admeasurements may be struck only by what appears to them extraordinary brilliancy of idea, and originality of expression. It is singular, but I believe true, that such persons may utter almost any continuation of spoken language without betraying themselves—the severer ordeal of writing, alone, serving to discover the diseased mental processes. What will add still more to the accumulated difficul-

ties of the case, is, that the individual, quite frequently, understands precisely what will be considered proofs of insanity, and dextrously avoids actual commitment on subjects where the close student of the case can yet discover that there are diseased conceptions. The listener will sometimes be carried quite to the verge of some actual diseased point, and there be left, to reach it by the irresistible force of an inference.

If all the difficulties attending such cases consisted in anomalies of thought, only, few of them would become subjects for hospital treatment, and thus would have no mention in this connection. But, from the peculiar root of the matter, whatever it may be, there springs, conjointly, a set of moral perversities, which have the effect to throw the individual into cross purposes with others, of the most trying character. To thwart, disorganize, and destroy the salutary influences and purposes of others, who are moving along in the ordinary pathway of human affairs, is a mission upon which they are driven with all the impelling power of insanity—a force infinitely stronger than the incentives which proceed from reason and natural sense of duty. It is fortunate for others if some imaginary call breaks up the local attachments of such persons, and sends them abroad, as is frequently the case, as peripatetic reformers. A vagrant life has the effect to diffuse and dissipate, as it were, any intensities of feeling, and they eventually sink out of sight by the supervention of a mild, but quite palpable insanity. Pent up within the limits of a family, a church, or a circumscribed community, the evil influence of such a person will eventually reach an explosive point, under which the prayers of their friends, for their admission to the hospital, become too pressing to be resisted. Those familiar with the history of the commotions of the infant colony of Massachusetts Bay, in connection with the doings of Anna Hutchinson, will find, in an investigation of this disease, the key to the singular career and hapless fate of that once famous personage.

Happily these cases are few in the records of our institutions, as one instance will cause more annoyance than scores of ordinary cases. Of the propriety of their admission there will be many opinions: one class, only, being unanimous—those who have most to do with them, and can best compare them with their former selves. In a hospital, their powers of mischief are intensified by the limited area of their operations. To fill the minds of less intelligent patients—especially new comers—with prejudices and terrors, in the face of

which no improvement is possible; to instil suspicions into the minds of friends of other patients by surreptitious correspondence; to set nurses at variance by artful misrepresentations; and to harangue visitors upon imaginary abuses suffered, are among the ordinary devices of these anomalous subjects. The wondrous adroitness with which they will place themselves in positions where they can have some pretext for considering themselves as subjects of abuse, and their ceaseless clamor when their pet grievances have a color of support, tax to the utmost the vigilance and patience of those assigned to the care of them. Most welcome is the day which brings the order for their discharge.

We conclude our reference to the able report of Dr. McFarland with the following extract upon the present faulty method of obtaining and applying the testimony of experts in cases involving questions of mental incompetency :

The position which the Superintendent of this institution must hold in relation to the administration of justice in the courts of the State, in a certain class of cases, has been matter of comment in a former report, and is still attended by so many embarrassments as to demand further consideration. No humane and thinking person, at this time, doubts that the violent acts of the insane should not be placed in the category of ordinary crimes, but deserve certain extenuations, especially when clearly preceded by a train of diseased reasoning, of which the act was a manifest conclusion. The question of insanity, indeed, constitutes the very essence of many cases which must constantly recur while disease is inherent in the human family; and to attempt to exclude the only kind of testimony which elucidates it is as futile as to exclude light in the operations of photography. The multiplication of hospitals for the insane has had the effect to diminish the attention paid by medical men in general to insanity, as part of professional study, and limit it to those with whom it must be a specialty; consequently, when cases arise where the existence of this disease is in question, the natural and immediate resort is to those whose professional position affords them the peculiar opportunities for its investigation. We cannot complain that the plea of insanity in criminal cases has not received, in the courts of this State, its full degree of respect. The care with which prejudices have been

laid aside, and the patient attention given to the facts and opinions of science, in many such cases, are most creditable to the enlightened policy of our courts. When we remember that it is but a bare fifty years, since when, but a single week intervened between the death of the English Prime Minister, by the hands of a palpable lunatic, and the appearance of the latter upon the anatomist's dissecting table, we must grant that humanity has made an advance, in the element of deliberation, at least. If the light which study and experience are supposed to throw upon the question could be reached in some manner different from the present, a point would be gained where new lustre would reflect on the jurisprudence of the State. The latest important contributor to the legal literature of the country, while indulging in a tone most unjust to the class to whom he refers, well expresses the evils attending the present condition of those called to testify in cases involving the question of insanity. He says:

They are beginning to be regarded much in the light of hired advocates, and their testimony as nothing more than a studied argument in favor of the side for which they have been called. So uniformly has this proved true, in our limited experience, that it would excite scarcely less surprise to find an *expert*, called by one side, testifying in any particular in favor of the other side, than to find the counsel upon either side arguing against their clients and in favor of their antagonists,*

A little reflection would have shown the learned author that the parties least censurable in this particular are those whose course is, by implication, called in question. They have no power to place themselves in an impartial attitude. They are partisans solely through a false position. They are summoned at the instance of one side only—interrogated only on points whitherward the interests of that side may tend—and cross-interrogated only where positions first taken may be deemed weak. What power, then, has the most conscientious *expert*, even if his experience is replete with facts of the utmost importance to the ends of justice, to lay before a court and jury just what is required and nothing more? This needless reproach upon a kind of testimony, which all experience proves is indispensable, might be removed by engrafting upon the existing legislation, concerning this institution, a provision which would make the course of justice, in this respect, unmistakably pure. The author just quoted, has, in a spirit of returning candor, very clearly stated the

* Redfield on the Law of Wills.

very remedy which those who suffer, in rendering testimony under the present state of things, have long desired :

There must be something fatally defective in our mode of obtaining and applying this class of testimony. For it cannot be supposed that, under proper regulations, there could be any difficulty in obtaining reliable scientific evidence, if the proper methods were resorted to. And it seems to us that some mode should be devised whereby the motive which is now offered to this class of witnesses to testify so exclusively for one side, should be not only counteracted, but that it should be entirely removed, and a contrary motive, for impartiality, presented. We mean no impeachment of this class of witnesses ; but any man, when approached by the counsel of one party, and furnished only with the views and facts of one side, and asked to give his opinion, naturally gives a one-sided opinion. And, having committed himself to one side, he is thereafter rendered incapable of forming a fair and unbiased judgment, upon the facts of the case. He becomes disqualified to act as a juror in the case. And when it is considered that his testimony is given to instruct, educate, and inform the court and jury in regard to the proper mode of determining the case, and that it is no uncommon occurrence for a case to turn very much upon the scientific and professional testimony, it is no less important that the experts should be wholly uncommitted in opinion, than that the jurors should be so. It seems very obvious, therefore, that this class of witnesses should be selected by the court, and that this should be done wholly independent of any nomination, recommendation, or interference of the parties, as much so, to all intents, as are the jurors. To this end, therefore, should the compensation of scientific experts be fixed by statute, or by the court, and paid out of the public treasury, and either charged to the expense of the trial, or part of the costs of the cause, or not, as the Legislature should deem the wisest policy. The mere expense of the experts, when selected in this mode, would be as nothing in comparison with the expense which now becomes unavoidable, in consequence of the enormous consumption of time in most of the trials of this class.

The undersigned would respectfully urge, in view of the unquestionable propriety of this measure of reform, that the Legislature be requested to amend Sec. 16 of the Act of February 15, 1851, (which, in part, establishes the relation of the Superintendent of this institution to the courts of the State,) in the manner above indicated ; or, else, to make complete the power, now in part existing, of being beyond the reach of any subpoena which would impress his services as an *expert*.

16. Dr. Van Nostrand, of the Wisconsin State Hospital for the Insane, reports the operations of the institution under his charge as follows : The number of patients remaining September 30, 1863, was 188. There

have been admitted during the year, 112. Total under treatment, 300. There have been discharged, 130; as recovered, 56; as improved, 21; as unimproved, 36; died, 17; leaving in hospital, 170.

Respecting these results, Dr. Van Nostrand observes:

A few of the people of this State have said to you in time past, and perhaps are saying the same thing at present, that the institution was hardly accomplishing what they expected of it; that it was not equal to the Utica or some other asylums that they have known in the East, which have been organized and ably conducted for a quarter or half a century. Now it is well understood by those who have spent their lives in the care of the insane, that the maximum per cent. of cures is not reached for some twenty or twenty-five years from the organization of a hospital, for the obvious reason that when it is first opened to the public, all the cases at that time in the State seek its benefits, without regard to the time which has elapsed since their occurrence or the cause of the disease. The institution is at once filled with cases of from a few months to twenty or more years standing, some epileptic, some idiotic, and some who have already passed through a thorough treatment in some other institution and been discharged incurable. With this unpromising class of patients all new State institutions commence their onward and toilsome career; they do not get freed from this incubus upon their prosperity in less than twenty years; therefore I feel that if the people were fully conversant with this matter, they would not expect so much of our new institution as from those of greater age. Their maximum of cures cannot be reached the first fifteen years, but their climax of usefulness, in relieving the misery and sufferings of this large class of the awfully unfortunate, may be reached in a much less time.

I feel that a conscientious Superintendent of a new institution may solace himself with the amount of suffering he is relieving, although his per cent. of cure is small; but that has not been the case with your hospital. The per cent. of recoveries in this hospital for the last year compares favorably with institutions of its kind in this country and in Europe. I find the average per cent. of recoveries in fifty-four insane institutions of the following nationalities: English, Scotch, Irish, German, Dutch and American, to be less than forty per cent. of the number of admissions per annum, while ours,

for the present year, is fifty per cent. I have also examined the reports of twenty old and excellent institutions of our own country, conducted by as much ability as any in the world. The average of the twenty is 43.05 per cent., while our own for the present year is, as before stated, fifty per cent. With this success in the fifth year of our efforts, I feel that Wisconsin can reasonably claim a consideration for ours among the prominent institutions of like character in this country.

17. From the Report of the Provincial Hospital for the Insane, Halifax, Nova Scotia, we gather the following : The number of patients, January 1, 1865, was 154. Admitted during the year, 46. Whole number under care, 200. Of the 50 discharged, 28 had recovered, 8 were improved, and 14 died.

It gives us pleasure to make the following record :

Through the liberality of the Legislature, a grant was passed at its last session enabling the government to add largely to the present building. Having in former years strongly advocated hospital extension, it affords your Superintendent great pleasure to be able to announce a satisfactory commencement of this important work. The centre building and two sections of the north wing are under contract. The excavation for the basement has been begun, and materials are being actively collected on the grounds for early construction on the opening of spring. The addition now being built will give room for ninety additional patients, besides affording more space for those already in hospital by vacating the apartments at present occupied by officers of the institution. The original plan is adhered to, except that a considerable portion in the rear of the centre building is omitted—the necessity for this portion being obviated by the present structure, in which the cooking, washing, baking, etc., are carried on. It is anticipated that the work now commenced will be completed in two years.

18. The statistics of the Indiana Hospital for the Insane for the year ending October 1, 1865, are thus expressed : Patients in hospital at the beginning of the year, 284. Admitted subsequently, 189. Total number

under treatment, 473. Discharged, recovered, 107; improved, 40; unimproved, 44; not insane, 1; died, 18; eloped, 1. Total discharged, 211. Remaining, 262.

Of the probable causes, in the 2,970 cases of insanity admitted to the hospital, Dr. Lockhart says :

It is evident that they were more generally such as weaken and exhaust the vital energies, as masturbation, nymphomania, gleet, leucorrhœa, menorrhagia, dyspepsia, over mental and physical taxation. Although the causes may be, and often are, the very opposite of exhaustion, yet I cannot conceive of insanity in any case without physical disease. Evidences of it may not be appreciable to our senses in the dead room, still they must have existed. Take a case of that numerous class of "domestic affliction," preceded by long-continued loss of sleep, as in angry excitement, or painful anxiety in which the brain is surcharged with blood, instead of being comparatively free from its presence, as in natural sleep. In such a case irritations of the brain and its coverings, with altered structure, must necessarily follow; just as long-continued engorgement of any of the organs of the body, must end in chronic irritations and impaired functions. Hence the inference, it is the structures through which the mind acts, that are diseased, and not the mind itself. In keeping with this view, the treatment of the body is of more importance than the treatment of the intellect, or the moral nature, although neither are to be lost sight of.

19. From the Report of the Bloomingdale Asylum, for 1865, we learn that 171 patients were in the institution on January 1, 1865, and that 152 have been admitted since, making the yearly total under treatment, 323. Of 152 discharged, 66 had recovered; 36 had improved; 22 were unimproved; and 28 died. Remaining December 31, 1865, 171.

Dr. Brown alludes to the gratifying success which has attended the operations of the asylum during the past year; he goes on to say :

For various reasons there is an increasing disposition among the prosperous classes to place their insane friends in this institution, and the efforts of its Governors to make suitable provision for such persons will probably prove as beneficial to the Asylum as to the patients.

The female department now offers accommodations which prove satisfactory to almost all who contemplate placing their afflicted relatives in our care. If the male division could be made correspondingly acceptable, the Institution would be about as complete as can be reasonably expected of any of its class. Unless some addition is made to this side of the house we will probably be unable to receive all applicants for admission.

There are, however, considerations affecting the question thus suggested, which makes its solution more difficult than might at first appear. Whether it be best to retain both sexes on these premises, enlarging the present building for the purpose, or to reserve both building and grounds as they now are for female patients alone, removing the men, at some future day, to a locality which will permit them more range for exercise without exposure to public gaze, is a question that merits the consideration of the Governors. The experience of the Pennsylvania Hospital for the Insane, in separating the sexes by devoting special buildings and grounds to each, will prove valuable in this connection.

20. The number of patients in the Iowa Hospital at the date of the last Report, December 1, 1863, was 216. Admitted to October 30, 1865, 269. Total number under care since last Report, 485. Discharged, recovered, 50; improved, 59; unimproved, 37; died, 55. Total discharged, 201. Remaining in hospital, November 1, 1865, 284. After some reflections upon the treatment of the insane previous to a half century ago, and the reforms introduced by St. Vincent de Paul and Pinel, Dr. Ranney observes :

The mystery in which disorders of the mind were shrouded, having been at length dispelled, much of the enlightened treatment of the present time began to prevail,—I mean, of course, in well regulated hospitals,—for the term “enlightened” is sadly inapplicable to the treatment which has prevailed in poor houses and private families.

The fact once established, that insanity is the result of a diseased brain, or diseased organism acting upon the brain, the way was clear for rational treatment, so that, at the present day, insanity is as intelligently and successfully treated as most other diseases. It is like other bodily diseases in this respect,—that the earlier treatment is adopted, the more successful will be the result. But, unlike other bodily diseases, it requires, for the highest success, removal of the patient from home and its associations, even isolation, in some cases most complete, perhaps for weeks and months. By removal to the hospital the double advantage is gained of conserving the influence of mind over matter by withdrawing the patient from the prolific sources of his disorder, and the substitution of new, pleasing, and healthier mental occupation for the vagaries of mental disorder. Under no other circumstances can the mind so successfully free itself from the tendency to unhealthy action. Here the numerous derangements of the physical functions—invariable accompaniments of insanity—can be most successfully treated, and repugnance to treatment, if it exists, best overcome. Here is afforded the first opportunity, perhaps, after the development of disorder, to exert a strong and healthy influence. Here the advantage which experience and intimate knowledge give the hospital director is of incalculable benefit. The patient finds in him, at least, a friend who understands and can farthest enter into his feelings, emotions, and beliefs, disordered though they be. Here, during the first remission of the disorder, can often be laid the foundation of recovery. Here he is removed from those toward whom his distrust and dislike, perhaps hatred, may be greatest. It is probable within the experience of every hospital director, that patients are friendly and confidential with him, while ready to indulge in indiscriminate abuse of their families and friends, who have sought only the best welfare of their unfortunate relatives. The insane may not only manifest aversion and dislike, but they may become dangerous. Indeed, delusion and unreasoning mental action are often, if not always dangerous. The catalogue of tragedies springing from such causes is extensive, and the experience of the officers of this institution attests the correctness of this view.

The care exercised over those who are suicidal is not the least of the benefits the hospital confers. In some hospitals this is a large class, and one which causes the greatest anxiety, and calls for unceas-

ing vigilance. That suicides will sometimes occur in hospitals and asylums, is shown by universal experience; but the proportion of fatal results to the number of cases treated is very small, while ultimate success in the management of this class of cases is proportionally great.

It is only reasonable to expect that, of the many patients brought to the hospital, there must be some who cannot be much benefited, and some who will be dissatisfied. This subject might be dwelt upon at length—but I will mention only one, and, as it seems to me, the chief reason of a want of success in any given case; and that is, unreasonable delay at the outset, arising, it may be, from distrust, or from a want of information—a delay during which the most hopeful period is wasted, and disorder is allowed to become chronic. This is especially true in the mental alienation arising from epilepsy. Of the forty cases now in the hospital, not one came under treatment until three or four years had elapsed from the period of the first attack, and all are probably incurable. As knowledge advances, it is hoped that the danger of such delays will be more clearly seen and understood. Action should be prompt when the first symptoms of mental disorder become apparent: and, with such exceptions and discrimination as have been indicated in previous reports of this hospital, immediate treatment is of the utmost importance, and its necessity cannot be too strongly urged.

The Causation, Course, and Treatment of Insanity in Women: a Gynecist's idea thereof; being the Report of the Standing Committee on Insanity for 1864-65. By HORATIO ROBINSON STORER, M. D., of Boston, etc.

This paper is included in the Transactions of the American Medical Association, at its meeting in Boston, June, 1865. It covers 135 pages of that volume, being of more than twice the length of any other paper contained in it, one only excepted. We have not copied above all the titles which are attached to the name of its author. They describe fully, we believe, the places of honor and emolument which he fills. But Dr. Storer is well known as the son of one of the first physicians of

New England, and as a young man of great industry and enterprise in his profession. He is a specialist, not, it appears, as devoting himself to one class of diseases, but to one sex. Thus it is that the insanity of women becomes a part of his specialty. This distribution of the field of medicine, it will be seen, bisects all the old dividing lines, and threatens a radical change in the present order of things. The province of gynæcology being set off from general medicine, when that of andrology is created for the diseases of men, what will be left to us? From the gloomy prospect thus opened to psychologists not only, but to many other workers in special fields of medicine, we turn to notice the main points of Dr. Storer's paper.

At the meeting of the American Medical Association in 1854, it was resolved that a committee should be chosen annually thereafter, to report "upon the subject of insanity as it prevails in this country, including its causation, as hereditary transmission, educational influences physical and moral, social and political institutions, etc.; its forms and complications, curability, means of prevention, etc." Dr. Storer thinks it remarkable that during the eleven years which have elapsed no report covering this entire subject should have been made. It does not seem to us that such a report is called for. The Association could not expect or desire the full discussion of so extensive a matter every year, and we have no doubt that reports upon special topics embraced in it answer to the meaning of the resolution. None can regret more than ourselves, however, that so little has been done from any point of view. We agree with Dr. Storer, that "every specialist, no matter what his favorite study, whether insanity, ophthalmology, or the diseases of

women, owes his first duty to the profession at large, for it is through it that his observations or discoveries must really become effective."

Notwithstanding what he has said, Dr. Storer wisely does not himself endeavor to cover the whole ground of the resolution in his report. He proposes to attempt mainly "an elucidation of the true causation of mental disturbance in a large proportion of the cases in which it obtains in women, and of a more rational treatment than is generally adopted." Now we cannot but think that these two points were not happily chosen by one in the position of the writer. Upon the connection of insanity with uterine disease he might very likely be able to contribute some interesting facts and speculations. But concerning a "large proportion of the cases" of insanity in women, it was impossible to suppose that he had any special knowledge. And what could he know, practically, of the treatment "generally adopted" for them, beyond what the text-books on insanity furnish? Especially when, in addition to such a choice of theme, Dr. Storer had previously announced his belief "that in women mental disease is often, perhaps generally, dependent upon functional or organic disturbance of the reproductive system," we do not wonder that the experienced alienists associated with him on the committee were unwilling to join in his report. Drs. Bancroft and Worthington, in their communications, admit all that is probable, and more than can be demonstrated, respecting the part played by diseases of females in the causation of insanity. Dr. Van Deusen, in his reply to Dr. Storer, notices a very singular proposition, which it seems the latter had already made the subject of a paper read before the Association, and wished to embody in the

present report. This was, to recommend the appointment of specialists in the diseases of women as consulting physicians to hospitals for the insane! Taken with the expressed opinions of Dr. Storer, this proposal was, in effect, a charge of ignorance and inhumanity upon a body of respectable medical gentlemen. No grounds for so damaging an imputation were shown, and it is not strange that, to his associates of the committee, the morality of its author appeared to little better advantage than his modesty. Let him but change places with them but for a moment. Suppose that a prominent member of our specialty should ask the countenance of three or four leading gynecologists in bringing before a body representing the entire profession of medicine a plan to appoint consulting physicians to all medical institutes, hotels, etc., where females are treated exclusively. And suppose, further, he should declare his opinion that the use of the speculum, in its effects upon the mind and morals of women, was the chief cause of insanity in that sex. Would there be any want of unanimity among the members of the Gynecological Society in condemning such a movement, as insulting? No one, we are sure, would be more prompt or severe in expressing his indignation than Dr. Storer.

But, however unjust in fact Dr. Storer may have been, we will not believe him guilty of intentional injustice. He has had a very large experience of disease in women, and has observed the great degree in which nervous and mental manifestations are influenced by maladies peculiar to the sex. And it is in mental disturbance short of insanity, such as he has had, we suppose, most experience of, that the intimate connection of the uterine and nervous systems is most apparent. We

well know, too, how difficult it is to resist the tendency in every specialty to make the particular organ with which we have to do the most prominent and potential of the whole. As Dr. Storer looks at all diseases in women through the speculum, so some of our own brethren explain all the evil of the moral and intellectual systems on the theory of insanity. How very deceptive his view of the causation of insanity through such a medium is, may be easily shown. Under this term, it is understood, are not included cases of minor mental disturbance as in hysteria, or temporary delirium from toxæmia, as in fevers, etc. Insanity proper, then, in the great majority of instances, as well of women as of men, is now as clearly shown to depend upon a diathesis as tuberculosis and gout. In more than one-third of the cases, this diathesis is handed down from one generation to another, and to give it any local seat, whether in the womb, the stomach, or, as to its origin, in the brain even, is purely fanciful. But take the few cases in which insanity is connected with disease of the reproductive organs in women, and is not traceable to heredity or any other constitutional source. How can we say that the cerebral depends upon the uterine disorder, rather than the uterine upon the cerebral? They may have arisen and increased together, or, what is quite as likely, the one may have replaced the other. Is it not more rational, more in accordance with the analogy of disease in general, to suppose both to be the expression of some cause which pervades the entire organism? The notion, then, that sex is in reality an important predisposing cause of insanity in women, as Dr. Storer believes, seems to us wholly unfounded. We could just as easily prove phthisis in women to be chiefly due to sex as insanity.

It is often developed at puberty, and pregnancy and lactation are constantly observed to affect its progress. Disorder of the menstrual function is almost certain to attend upon it. Finally, certain symptoms, as cough, emaciation, and nervous disorder are common to both phthisis and uterine disease.

Whether uterine disorder is a principal exciting cause of insanity, it is not important to discuss in reference to Dr. Storer's plan of special treatment for insane women. The exciting cause of pneumonia may be a moment's exposure to cold; but the physician does not treat the chill. In fact, he does pretty much as medical alienists had learned to do in all cases of insanity where the essential and exciting causes are not the same, and clearly within reach. He moderates dangerous symptoms, and uses the proper means to prevent the exhaustion of his patient. Is it not true, too, that one of the chief tendencies of modern medicine is to leave local remedies in constitutional and self-limited diseases to the use of quacks? No one who is not a specialist of a single idea, or an acknowledged charlatan, now professes to cure tuberculosis by treating the attendant bronchitis, or cancer by healing the superficial ulcer. In our opinion, it is no less vain to expect to cure insanity in women by cauterizing or manipulating the uterus.

But we shall not further controvert the views of Dr. Storer, especially as they are neither based upon experience nor supported by reasoning. Although he declares them to be "in every respect important, and in some respects novel," his main source of proof is in quotations, which compose at least three-fourths of his paper, from the writings of Aræteus of Cappadocia and his successors down to the present time. Now so far as his views

are novel, of course they are not set forth by the authors whom he quotes. It is not impossible, to be sure, that the reader may find in this medley of contradictory, irrelevant and obsolete opinions, something which may serve as evidence of their importance. He will find, at any rate, sufficient cause for wonder that so much could be said and copied on a subject of such interest without bringing out a single original or valuable thought in the mind of the writer. His theory of the pelvic origin of insanity in women is new only in its being carried to the verge of absurdity. His advice to appoint consulting physicians from his own specialty for the insane hospitals of the country, is at least presumptuous. His belief in the practicability of directing greatly increased and special treatment to diseases of the womb in a hospital for the insane, is perhaps a natural consequence of his devotion to a single phase of medical science. But the reflection that he might possibly be in error in a matter of which he had no practical experience, should have prevented his announcing his opinions with a confidence which seems quite unbounded.

A Treatise on the Principles and Practice of Medicine. By AUSTIN FLINT, M. D., Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, and in the Long Island College Hospital, etc. Philadelphia: Henry C. Lea. 1866.

Especially in his aim to furnish a text-book for medical students, Dr. Flint has, in our opinion, achieved a decided success. The plan of his work, in the order and connection of the various subjects which compose it, is a model of systematic arrangement. It is also admirable in the due degree of importance accorded to each subject, and the impartiality of its treatment. The style is suffi-

ciently concise ; but this is due rather to close and direct thinking than to a restrained use of language. Dr. Flint is, in fact, affluent in words, and prefers many-syllabled and technical ones. But he always uses the word which expresses the exact shade of meaning, is seldom redundant, and never repeats himself. His work is also commendable in what is omitted. While nothing properly within its scope is left out, there is yet nothing superfluous. No long cases are given, no tedious discussions are indulged in, and no notice is taken of obsolete opinions and doctrines. Medicine is conceived as a branch of science, to be taught in the stage of progress at which it has now arrived, and with the method in which scientific subjects are elsewhere presented. It has seemed to us that medical text-books should always be of this character. Certainly, if the knowledge given to the student is not systematized as it is acquired, there is little chance that it will ever be. Dr. Flint has also wisely shunned all rhetorical display, and makes no effort to excite any other interest in his subject than that which belongs to it as a matter of science. This characteristic we regard as of no small value. No doubt the idiomatic and colloquial style of Dr. Watson's lectures renders them more pleasant reading than Dr. Flint's book. They have the charm of a romance, and are besides an excellent mirror of the average medical opinion and practice of the day. Their author has even been termed "the Macauley of medicine." But these are scarcely reasons which should recommend his writings for the use of the medical student. The pages of the brilliant historian are but little resorted to, we suppose, for the study of the science of government.

There is, however, something more important than the style and formal treatment of his subject, in which, as a manual for the student, Dr. Flint's work excels that of Dr. Watson, and, so far as we know, all others of its class in the English language. We refer to the matter of the teaching itself. For the last forty years a change has been taking place in the opinions of medical men respecting the nature and treatment of disease, which has at length amounted to a revolution. This change may be represented, as to its doctrines, by the theory of inflammation taught by Bennett, Todd, Beale and others. The new modes of treatment, though by no means fully adopted in practice, are very generally approved, and are directly challenged by few. But a large proportion of the medical writers and teachers of to-day were educated in the old doctrines, and cannot give them up. Their practice is greatly changed, but their thinking and teaching are cast in the old forms. It is another illustration of the old story. The new patch is put on the old garment; the new wine fills the old bottles. Their general pathology does not harmonize with their special; their clinical and didactic teaching differ. The consequence is such as may be observed in all transition periods of doctrine. Medical scepticism becomes general, and prepares the way for a reaction into transcendental and superstitious systems. In this we have an explanation of the rise of homeopathy, spirit-medicine, etc. Now there can be no remedy for such a state of things until the theory and practice of medicine are brought to form a consistent body of teaching. In the work of Dr. Flint this is more perfectly done than in any other that has come to our notice, and it deserves the warmest welcome from all the advocates of rational medicine. We

hope, especially, that it may become the preferred textbook of every American Medical School. *

The Medical Record.

This is a semi-monthly journal of medicine and surgery, published by William Wood and Company, of New York, and edited by Dr. George F. Shrady, the former associate editor of the *American Medical Times*. The *Record* bids fair to fill the void occasioned by the discontinuance of the *Times*, and to be a worthy exponent of the medical profession in New York. We desire to commend this ably conducted periodical to the readers of the JOURNAL, and especially to the members of the Association of Superintendents, of whose "Proceedings," in times past, Dr. Shrady was a faithful chronicler. Terms of subscription, \$4.00 per annum, in advance.

SUMMARY.

APHEMIA OR APHASIA.—Loss of the faculty of speech is commonly observed as dependent upon loss of voice, or aphonia. This may be due to inflammation or ulceration of the larynx, to the pressure of a tumor upon the recurrent laryngeal nerve, or to paralysis of the spinal accessory. *The latter is a purely functional affection, occasionally met with among the phenomena of hysteria. There may be also a more or less complete loss of voice and speech from want of coördination of the several nervous acts which go to make up these functions.

The power of speech may be thus destroyed or impaired through defect in its physical apparatus. On the other hand, the same result may be due to abolition of the mental faculties, as in dementia. The loss may be total, or one or two single words, or even broken sentences may be uttered.

But within a few years cases of loss of speech have been observed, in which neither any affection of the vocal organs nor impairment of the intelligence was manifest. It is claimed that these cases, without exception, present some lesion of the anterior lobes of the brain. Nearly always, this lesion is found in the left frontal lobe, and connected with hemiplegia of the right side. The subject was first brought before the Anthropological Society of Paris, by Dr. Aubertin, in 1862. Since that time it has been the theme of a most extended discussion, the history of which is given in the

Journal de Médecine Mentale, for September and October of last year.

In respect to the name which should be given to the new disease, learned men have differed widely. But as these differences are mainly fanciful, or at least pedantic, we need not dwell upon them. At length the question has been narrowed down to a choice between the terms aphemia and aphasia. Of these the latter, which simply denotes the privation of speech, seems to be the general favorite. There is less controversy in regard to certain pathological and other facts. It is said that in nine cases out of ten of simple aphasia, there is found some lesion of one of the anterior lobes of the brain. In aphasia complicated with hemiplegia, this characteristic lesion is found added to that of the hemiplegia, also in nine cases out of ten. But the most striking fact is yet to be stated. While in seventy-five per cent. of cases of aphasia the posterior parts of the second and third frontal convolutions on the left side are more or less disorganized, in ninety-five per cent. of those complicated with hemiplegia the right side of the body is the one affected. So that if we have a patient with hemiplegia who speaks, his paralysis will be found almost invariably to be of the left side. It is not strange that so much effort has been made to find out the true relation of these remarkable facts. Their most obvious meaning points to the frontal lobe of the left hemisphere as the seat of the faculty of speech. But to assent to this is to give a partial support to the craniological theories of Gall and his followers, now almost universally rejected by physiologists. It is declared, then, by the opponents of those who would thus locate the faculty of language, that to confine it to one hemisphere of the

brain would be to ignore all the facts and analogies which point to the duality and symmetry of that organ. If the faculty is seated in one anterior lobe, it should have a corresponding place in its fellow on the opposite side. Again it is objected, that a few cases of aphasia have been observed in connection with hemiplegia of the left side. But a single exception, if perfectly authentic, is enough to discredit a theory like the one in question.

The greatest fallacy, however, of those who favor this notion of a local organ of language, seems to be in the assumption that they have a case of simple aphasia in every case of loss of speech coëxisting with hemiplegia of the right side, and with lesion of the anterior lobe of the left cerebral hemisphere. Is not this a perfect instance of that universal error, the substitution of an hypothesis for something proved, the use of a word for a fact? For whether this aphasia, as defined, exists, is the very point in question. If the intelligence is not clear, on the one hand, or if the lesion is excentric, on the other, then there is no case of aphasia. We have all seen hemiplegic subjects deprived of intelligible speech, but it did not seem to be from a simple failure to remember words while the ideas corresponding to them were firmly and clearly held. On the contrary, the power of thought itself was evidently impaired. Now, just here centres all the practical importance of the discussion. Whether there is a special organ of language; what is the mode of connection between thought and speech, and in what part of the brain the one is transmuted into the other; how to separate between present intelligence and memory; on all these points it would be very gratifying to us to be fully enlightened. But in a case of loss of speech connected

with hemiplegia, or other central lesion, how to determine whether, or how far, the memory of words is alone at fault, or to what extent this is complicated with a vagueness of the patient's own ideas, and an inability fully to take in the meaning of others? This is the question which, on account of its important medico-legal bearings chiefly, we should be glad to have answered. The psychological problems, which have received so large a share of attention, are not less important indeed, but are certainly less hopeful of solution. Neither should a revival of the old quarrel about phrenological theories be permitted to divert from the true object of inquiry. If it finally appears that a post-mortem examination may be relied upon to clear up all doubts as to the "sound mind and memory" of a testator, no one will refuse the test merely because it tends to support the doctrines of Gall. We hope that further study will be directed solely to the tangible facts which have, properly enough, excited such an extraordinary interest.

APHASIA.—In the *Edinburgh Medical Journal*, for March, is detailed an interesting case illustrating the supposed connection of aphasia (loss of the cerebral faculty of speech) with right hemiplegia, and lesion of the external left frontal convolution of the brain, by Dr. William R. Sanders. The author sums up the peculiar features of this affection as follows :

First. In the first place, the patient has, in a peculiar manner, lost the power of expressing himself by words. The loss may be complete, so that he emits no sound, or does nothing but mumble; or the loss may be partial. The partial forms are often extraordinary. Sometimes the patient can speak certain words quite distinctly, while he does not even attempt to say others quite as simple; sometimes

he can only say "yes" or "no," using them often without reference to their meaning; sometimes he has forgotten all his vocabulary except some familiar oath, or some short word of his own coining, which he utters automatically on all occasions. In other instances, the patient mutilates words in various ways, pronouncing half-words only, or giving words some uniform artificial ending; or, again, he misplaces words, using them in a wrong sense; or, lastly, he omits certain classes of words altogether; thus, some persons leave out the nouns, others the verbs from their sentences. Illustrations of all these forms are well known. It is evident that these different varieties require special study, but for the present purpose they may be all classed together as examples of aphasia, or speechlessness—the impairment, perversion, or loss of the cerebral faculty of speech or articulate language.

Second. The second peculiarity of the loss of speech now under consideration is, that it cannot be accounted for by defective intelligence, that is, by want of ideas to express. Nothing indeed is more evident than that the patient thinks, and that he is extremely anxious to communicate his thoughts. His face and eyes appear full of expression, and he makes eager efforts to convey his meaning, and, when he fails, he betrays his disappointment, according to the nature of his disposition, either by a good-natured smile and laugh, or else by frowns or tears. He frequently resorts to signs and gestures to assist him in his difficulty; and it is very remarkable that, in some cases, when the power of vocal speech is lost, the patient retains the ability to write distinctly what he wishes to communicate. In other cases, however, the power of written language is impaired or lost as well as vocal speech; and in the worst cases, even gestures and other imitative signs are wanting.

Third. The third characteristic of this kind of loss of speech is that it is not due to peripheral paralysis of the organs of vocalization or of articulation; for these organs are either entirely exempt from paralysis, or if some facial or lingual palsy be present as a complication, it is not sufficient to prevent, rarely even seriously to interfere with the articulate pronunciation of words.

The defect of speech, therefore, in the class of cases under consideration, is cerebral only. The patient has thoughts, and has voice and tongue and lips capable of uttering them; but some of the links in the process are missing; either that link by which the mind translates ideas into the corresponding conceptions of sound, called words,

or that link by which the brain converts the words conceived in the mind into the initiative impulse by which the apparatus of vocal speech is set in appropriate action.

Two kinds of aphasia have accordingly been distinguished. 1st. Amnesic aphasia, loss of speech depending on defective memory of words, and therefore to some extent a psychical defect; and, 2d. Ataxic aphasia, where the loss of speech is due to lesion of a supposed cerebral apparatus of coördination for the movements of articulate speech—a defect in the nervous mechanism only.* These two kinds are chiefly distinguished by the circumstance that in the former (the amnesic aphasia) the patient has lost the ability to write as well as to speak; while in the latter (the ataxic aphasia,) he retains the power to write, but cannot articulate. The distinction is important clinically; but the theory of a distinct coördinating centre in the brain for articulate speech suggests anatomical and physiological questions which it would be out of place to discuss here, and the discussion of which is as yet probably premature. A cerebral organ of impulse is all that theory would require to account for ataxic aphasia.†

TRAUMATIC INSANITY. — In the *Edinburgh Medical Journal*, for February, Dr. Skae describes a number of cases of Insanity caused by injuries to the head and by sunstroke. He believes the pathology to be the same in insanity resulting from injury or sunstroke, and to consist in chronic hyperæmia of the brain and its membranes. In some of the cases detailed insanity followed immediately upon the injury, while in the larger number months or years elapsed before its appearance. “In

* Lesion of a special coördinating centre is M. Bouillaud's theory. M. Lordat, the distinguished Professor of Physiology in the University of Montpellier, who was himself, many years ago, the subject of aphasia (“*alalia*,” as he calls it,) ascribed the loss of articulation to the defective *synergy* (*i.e.* associated action) of the muscles which form the moveable apparatus of speech.

† I have not yet seen a case of aphasia without verbal amnesia, and without some impairment of the mental faculty of attention; and I should be disposed to regard some degree of amnesia as probably present in all cases of aphasia.

such cases," Dr. Skae remarks, "the connection between the injury and the insanity is generally indicated by the fact, that a slight change in the character, habits, or disposition is observed immediately after the injury—this change becoming more and more marked until it culminates in insanity." Dr. Skae concludes his paper as follows :

First. That traumatic insanity is generally characterized at its commencement by maniacal excitement, varying in intensity and duration.

Second. That the excitement is succeeded by a chronic condition, often lasting many years, during which the patient is *irritable, suspicious, and dangerous* to others.

Third. That in many such cases distinct homicidal impulse exists.

Fourth. That the characteristic delusions of this form of insanity are those of *pride, self-esteem, and suspicion*, melancholia being very rarely present.

Fifth. That this form of insanity is rarely recovered from, but has a tendency to pass into *dementia*, and to terminate fatally by brain disease.

Sixth. That the symptoms, progress, and termination of insanity, resulting from traumatic causes, are sufficiently distinctive and characteristic to entitle it to be considered a distinct form of insanity.

CLIMACTERIC INSANITY IN THE MALE.—In a paper on this subject, by Dr. Francis Skae, in the September number of the *Edinburgh Medical Journal*, the following conclusions are given :

1. That there occurs in men between the ages of 48 and 60 a form of insanity, accompanied by more or less constitutional disturbances, which, in its symptoms, progress, and results, is identical with the insanity met with at the climacteric period in the female, and which may therefore with propriety be called climacteric insanity in the male.

2. That the symptoms of this form of insanity are so characteristic as to render it easily recognizable.

3. That this is the most curable form of insanity associated with melancholia which occurs in men, the recoveries being in the ratio of 56.7 per cent.

4. That the duration of the insanity in curable cases rarely exceeds four months.

5. That this form of insanity, apart from suicide or organic disease, rarely tends to a fatal termination.

6. That the most important indications of treatment are—early removal from associations and friends; careful watching; occupation, as especially out-of-door work; nutritious diet; and the judicious administration of narcotics.

DEAF MUTISM.—A meeting was held on Monday evening in the Hanover-square Rooms for an object of no less physiological than philanthropical interest. It was convened primarily to raise a sufficient sum of money to provide a chapel with class and lecture-rooms for the deaf and dumb of London; and secondly, to give a number of these unfortunates an evening of amusement—tea, dissolving views, and addresses in sign language. How perfectly possible it is to address a large assembly by sign language is proved by the feat performed by the Rev. S. Smith, the Secretary and Chaplain to the Association in Aid of the Deaf and Dumb, who, standing in front of the Chairman, Capt. the Hon. R. Grosvenor, managed to reproduce on his fingers the whole of the Chairman's tolerably long address, sentence by sentence, almost as rapidly as it was uttered. The whole history of deaf mutism involves a problem of great Medical interest. What is the defect in nervous structure which entails it? How often does it depend simply on absence or defect of the auditory nerve, or in what proportion does such a defect coëxist with a radical deficiency in the whole nervous centre? A certain proportion of deaf mutes are imbecile, but a larger proportion, as the results of training show, are capable of an extraordinary progress in mental culture. Still, on watching the deaf mutes who crowded the Hanover-square Rooms on Monday, we were struck with the remarkable cranial conformation—often defective in size and development—the small forehead, and scanty lower jaw, which a large proportion of them exhibited. Probably low cranial development may be, in part, the result of the absence of one great channel by which ideas and materials for thought are obtained. But it is also, we have little doubt, a mark of general congenital cerebral deficiency, of which the deafness and dumbness

are only the most striking proofs. Still, there are not wanting instances of great intelligence and aptitude for acquirement amongst deaf mutes. Some of them have been admirable painters; others have learned to perform well the duties of ordinary business—they have been good accountants and handicraftsmen. The subject of the alleged location of the powers of speech and expression by words in a particular portion of the brain has lately attracted considerable notice in France. We believe that the location of speech in the anterior lobes of the cerebrum is an assumption which does not stand the test of pathological facts; but it is certainly true that the cranial development of a large proportion of deaf mutes is below the average—a circumstance closely connected both as cause and effect with the absence of speech and hearing.—*Medical Times and Gazette.*

OBITUARY.—Since the last issue of the JOURNAL two men of great eminence in the domain of psychiatry have passed away—John Conolly, M. D., on the 5th of March, and Sir Alexander Morison, on the 14th of the same month. The following obituaries are from the London *Medical Times and Gazette*. The tribute to the memory of the illustrious Conolly is “from one whose pen is tinged with the affection produced by the closest ties:”

JOHN CONOLLY, M. D.—Early in the morning of Monday, March 5, there passed to his everlasting and long-desired rest, after a few hours illness, one whose name will always be identified with a great and noble work. John Conolly, to whose earnest convictions, faithful perseverance against all difficulties, and zealous labors, the modern humane treatment of the insane mainly owes its practical origin and its consummate triumph, is henceforth only a name in history. But if there is a good title to the gratitude of mankind in the alleviation of infinite human suffering—if there is a title to immortal fame in the faithful performance of a great and good work of reform, the memory of which must last as long as human sympathies endure, then his is a name which the world will not let die, and his a glory of which nothing ever can bereave him. He made the best part of a life having many vicissitudes a noble part of human progress: by his death individual ties and sympathies, virtues and foibles, all fall away, and the greatness of his life, standing more clearly out, becomes the concern, as it is the gain and honor, of mankind.

The late John Conolly, M. D., was born at Market Rasen, in Lincolnshire, his mother being of the name and family of the present Laureate. His father dying when he was only a few years old, he was early sent from home to school; and often and earnestly in after life did he revert to the dreary misery of that period, in which the semblance of learning was mechanically imparted by aid of frequent punishments. That he had obtained by stealthy purchase some volumes of the *Spectator* and a copy of the "Pilgrim's Progress" were gleams of bright reminiscence of that dark period; and he read and reread the essays of Addison with a delight to which he ever loved to recur, and which we may understand in one who wrote as elegantly and correctly as he always wrote. It may well be, indeed, that the influence of Addison's easy and graceful style contributed to the formation of his own correct taste in composition; for to the last, scarce anything more offended his refined sensibility than coarseness and slovenliness in the expression and structure of a sentence.

Soon after leaving school, and when not yet eighteen years of age, he entered a Militia Regiment as ensign, and was stationed at different places both in Scotland and Ireland. The life of thoughtless pleasure and reckless excitement, common at that time amongst the officers of a regiment, could not fail to be for a time attractive to a young ensign of lively and impulsive temperament, with a passionate love of genial social intercourse; but it marks the superiority of his mental culture, as well as the skill of the pen which has often pleased and instructed the readers of this journal, that other officers used commonly to have recourse to his help to compose their important letters. Not long after leaving the regiment, and when only 22 years of age, he married, and went with his wife to France, where in a beautiful cottage near Tours, afterwards occupied by the poet Béranger, he passed in unheeding enjoyment the happiest year of his life. But at the end of a year, and when a child had been born, it became necessary to think seriously of adopting some profession or other regular means of livelihood. After consulting friends, one of whom was the amiable Dr., now Sir Arnold Knight, he resolved to commence the study of Medicine at Edinburgh. Leaving, then, behind him, with natural reluctance, his beautiful cottage and the unmingled poetry of life, he set forth with his wife and child to Edinburgh, and began in earnest the work of a Medical student. It was a great and dreary change, but its weight was lightened by the friendly hospitality of many of the illustrious men who at that time

adorned the northern capital, and who were attracted to the student by the amiable disposition, courteous manners, and refined culture which distinguished him through life.

On graduating as a Doctor the subject of his thesis was "Insanity;" his attention being thus early occupied with the subject which was to be the field of his future labors and triumph. It will be erroneous, however, to suppose that he then foresaw the future scope of his work, or that he had any definite aim which he proposed to himself to work for. No man who has done anything great in the world of practical activity ever had such predetermined aim, though he might think so afterwards; there is much blind struggling, amidst shifting uncertainties and untoward circumstances, before the appointed man and his work come together; and it is that which lies deep in his nature, that which is beneath will and beneath consciousness, and of which he can give no account; that unconsciously impels him on his course, and inspires him with the faith necessary to success.

On leaving Edinburgh, Dr. Conolly first went to Lewes, with the object of there settling in practice, but moved after three months to Chichester, where, about the same time, the late Sir John Forbes established himself. Their short rivalry was the foundation of a lasting friendship, and they were afterwards associated together as joint editors of the *British and Foreign Medical Review*, and with Dr. Tweedie in the production of the *Library of Medicine*. But Chichester was not equal to the support of two Physicians, and Dr. Conolly, after residing there a year, removed to Stratford-on-Avon, where he practised successfully for several years, and accomplished much literary work. Here, too, he enjoyed the friendship of the great Whig scholar and champion, Dr. Parr, the severest of schoolmasters, but the most kind-hearted of men. Leaving Stratford-on-Avon to assume the Professorship of the Principles and Practice of Medicine at University College, London, he established himself at Gloucester-place, and was during the time of his residence in London one of the most active members of the "Society for the Diffusion of Useful Knowledge." But as practice did not come sufficiently quickly, and as divisions existed in the councils of the college, and bickerings and heart-burnings within its walls, while no Hospital had been built, he resigned his appointment, after holding it for three years, and returning to the neighborhood of Stratford, settled at Warwick. It was after he had been there six years that the office of Resident Physician to the Hanwell Asylum became vacant, and that he applied for the

appointment ; being defeated only by the casting vote in favor of Dr. Millingen. But a year afterwards the office was again vacant, and his second application was happily successful. And now at last, after many wanderings and much suffering, he had found the true sphere of his labors? he was appointed Resident Physician in June, 1839, and in September of that year every form of mechanical restraint had been banished from the Asylum. It was some time before the non-restraint system was generally accepted as practicable ; much opposition had to be encountered and overcome ; but the experiment made on so large a scale in an institution containing nearly a thousand patients, suffering from every variety of insanity, proved beyond all question not only the entire practicability, but the great benefit of the human system of treatment. The complete record of its progress is contained in the admirable Reports of the Hanwell Asylum from 1839 to 1844. In the latter year Dr. Conolly resigned his appointment at the Asylum, but continued to devote his energies to the promotion of every good scheme having for its object the improvement of the condition of the insane. In conjunction with the late Dr. Reed, he was an active promoter and the constant supporter of the Idiot Asylum at Earlswood ; and his warmest desires were fixed on the establishment of long and sorely needed public asylums for the poor insane of the middle classes.

Though it may justly be thought, perhaps, that one who did so much for the world was not adequately rewarded by it, when others who have not deserved so well have received great rewards, his services were not entirely unrecognized. A magnificent testimonial, consisting of a massive silver group of allegorical figures, together with his portrait, was presented to him in 1852 by public subscription ; and in the same year the University of Oxford conferred upon him the degree of D. C. L. But his highest testimonial is the noble work which he has accomplished, and his highest honor will be in the grateful recognition of foreign lands and of future ages.

Of his literary works we cannot speak at length now. They are well known both in this and other countries ; his book on the "Construction and Management of Lunatic Asylums" is a standard work of authority, and his little work on "Hamlet," published two years ago, is one of the most graceful, learned, and philosophical essays that he has ever proceeded from any pen. His extremely polished style, the careful construction of his sentences, the elegance and precision of his language, make whatever he wrote most interesting to read.

During the last few years of his life he had, in consequence of failing health, gradually retired from active practice; and daily occupied in the study of classical authors, English and Latin, he awaited with equanimity the great change. He had so lived that when the summons came he could meet it, not in fear and trembling; but, sustained by the consciousness of a good work well done, he willingly approached his grave as one who, the long day's task's over, "wraps the drapery of his couch about him, and lies down to pleasant dreams." His end was sudden, as he had ever prayed that it might be; and his intellect was perfectly unclouded until close upon the fatal termination, as he hoped with an exceeding earnest hope that God would grant it might be. A sudden attack of hemiplegia was followed by severe unilateral convulsions, and in a little more than two hours he entered on his everlasting rest. He was 71 years of age.

"After life's fitful fever he sleeps well."

THE LATE SIR ALEXANDER MORISON.—But a few days have intervened between the death of Dr. Conolly and the death of Sir Alexander Morison, two names preëminently distinguished in the annals of improvement in the treatment of the insane in this country. Sir Alexander Morison was the older man, having attained at the time of his death, on the 14th current, an age only six weeks short of eighty-seven years. Dr. Conolly was fifteen years younger.

Sir Alexander Morison was born at Anchorfield, near Edinburgh, on May 1, 1779. At the High School of Edinburgh he was in the same class with Lord Brougham. In 1798 he took the diploma of surgeon, and in the following year he obtained the degree of Doctor in Medicine from the University of Edinburgh. After a year's probation as a Licentiate he was elected a Fellow of the Royal College of Physicians of Edinburgh in 1801. In 1808 he became a Licentiate of the Royal College of Physicians of London, but not till 1841 did he obtain the rank of Fellow of that College. In 1809 he was appointed Medical Superintendent of a private asylum for the insane in the county of Surrey. About the year 1816 he delivered a course of lectures in Edinburgh on mental diseases, to the excellence of which some surviving members of the Medical Profession can still testify.

In 1816 he was appointed Physician-in-Ordinary to her Royal Highness the Princess Charlotte of Wales, and after her marriage he

obtained the like honorable office from her husband, Prince Leopold, the late King of the Belgians, who was further graciously pleased to stand godfather to his infant son. He also held the appointment of Physician to the Duke of York.

In 1827 he was elected President of the Royal College of Physicians of Edinburgh, which office he held for the usual period of two years.

In 1832 he was appointed Consulting Physician to the Middlesex Asylum, at Hanwell, and Visiting Physician to the Surrey County Asylum. In 1833 he gave his first course of lectures on mental diseases in London, which course was continued annually for a number of years. In 1835 he was appointed Physician to the Royal Hospitals of Bethlehem and Bridewell, and Consulting Physician to several other asylums for the insane in different parts of England, and in these he labored assiduously to promote the comfort of the insane poor.

In 1838, soon after the accession of her present Majesty, he received the honor of knighthood.

After his retirement from the office of Physician to Bethlehem Hospital, he lived chiefly near Balerno, in the parish of Currie, visiting England occasionally in the performance of his duty as Consulting Physician to the Surrey and other asylums. This he did till within the last few years, when the effects of a severe illness rendered it more prudent to remain nearer home. Notwithstanding his great age, he retained his faculties to the last moment of his life.

Sir Alexander's works are numerous, the most remarkable of which is "*The Physiognomy of Mental Diseases*"—a very valuable book, in which, along with descriptions of the various forms of deprivation of mind, are illustrative portraits from drawings by eminent artists taken from patients in the several institutions with which he was connected.

In 1864 he instituted an annual course of six lectures on mental diseases, under the direction of the Royal College of Physicians of Edinburgh, the first course of which was given in Physicians' Hall last summer, by Dr. Sellar, appointed by him the first lecturer. He has also established an annual prize to the best recommended male and female attendant in the British asylums for the insane.

Sir Alexander was twice married. His sons have all died before him. He has left a widow, several daughters, and numerous grandchildren, to lament. He is buried in the churchyard of Currie.

MEETING OF SUPERINTENDENTS.—The Twentieth Annual Meeting of the Association of Medical Superintendents of American Institutions for the Insane, will be held at Willard's Hotel, in the city of Washington, April 24th, 1866.

NOTICE.—Messrs. Hurd & Houghton announce that they have in press and will soon publish “Shakspeare's Delineations of Insanity, Imbecility and Suicide,” by A. O. Kellogg, M. D., Assistant Physician at the State Lunatic Asylum, Utica, N. Y. The volume consists of essays which have appeared from time to time in this JOURNAL, and have been read with interest by the lovers of Shakspearian literature, who will be pleased to see them preserved in a more convenient form than that afforded by the pages of a medical periodical.







